IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Actuarial Valuation Report as of June 30, 2009

Milliman

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ACTUARIAL VALUATION OF THE IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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November 9, 2009

Investment Board
Iowa Public Employees' Retirement System
7401 Register Drive
Des Moines, IA 50321

Re: June 30, 2009 Actuarial Valuation Report

Dear Board Members:

We have performed an actuarial valuation of the Iowa Public Employees' Retirement System (System) as of June 30, 2009 for determining contribution rates effective for the period July 1, 2010 to June 30, 2011. The major findings of the valuation are contained in this report. The report reflects the benefit provisions and scheduled contribution rates in effect as of the valuation date. This actuarial valuation includes the information required under Iowa Code section 97D.5 for each IPERS membership group.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations for the future); and which, in combination, offer our best estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Investment Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations presented in this report under GASB Statement No. 25 are for purposes of fulfilling financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix B of this report, and of GASB Statement No. 25, as amended by GASB Statement No. 50. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of IPERS. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

(a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We would like to express our appreciation to IPERS' staff, who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report and look forward to discussing it with you.

MILLIMAN, Inc.

Sincerely,

Patrice Beckham

Patrice A. Beckham, F.S.A.
Consulting Actuary

Brent A. Banister

Brent A. Banister, F.S.A.
Consulting Actuary

SECTION I

EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of the June 30, 2009 actuarial valuation of the Iowa Public Employees' Retirement System (IPERS). The primary purposes of performing the valuation are as follows:

- to evaluate the sufficiency of the statutory contribution rate structure to fund the benefits expected to be paid to regular members in the future and to determine if the Plan's funding meets the criteria set out in the Funding Policy established by IPERS,
- to determine the actuarial contribution rates for the Special Service Groups,
- to evaluate the funded status of the System and disclose various asset and liability measures as of June 30, 2009,
- to determine the experience of the System since the last valuation, and
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.

The actuarial assumptions and methods are unchanged from last year's report. The actuarial valuation results provide a "snapshot" view of the System's financial condition on June 30, 2009. The results reflect net unfavorable experience for the past plan year as demonstrated by an unfunded actuarial liability (UAL) that was higher than expected, based on current actuarial assumptions. The UAL on June 30, 2009 for all membership groups covered by IPERS (Regular members and both Special Service Groups) is $4.895 billion as compared to an expected UAL of $2.856 billion. The unfavorable experience was the sum of an experience loss of $1.9 billion on the actuarial value of assets and an experience loss of $0.1 billion on System liabilities.

The statutory contribution rate for regular members had been 9.45% (3.70% for members and 5.75% for employers) since 1979. For several years, the valuation had indicated the 9.45% statutory contribution rate was insufficient to finance the benefits provided by IPERS. In 2006, legislation was passed that increased the statutory contribution rate 0.50% per year for four years commencing on July 1, 2007. The increase each year is shared 40% by the members and 60% by the employers. By July 1, 2010, the statutory contribution rate is scheduled to reach 11.45% of pay. Legislation passed in 2008 gave IPERS the authority to implement actuarially determined contribution rates for the regular membership group after fiscal year 2011. However, the contribution rate may not change by more than 0.50% in any single year. In the valuation, future increases in contribution rates are reflected for purposes of analyzing the long term funding of the System. However, for purposes of reporting under Governmental Accounting Standards, future increases in the contribution rate are not reflected. This valuation reflects the third scheduled increase in the contribution rate from 10.45% to 10.95%. The change in the member contribution rate results in higher projected refunds for members who terminate active employment because the amount of employer money refunded increases. The higher benefits translate to higher liabilities and a slightly higher normal cost.

The summary of the 2009 valuation results are shown below:

Contribution Rate for FY2011			
	Regular Membership	Special Service Group 1*	Special Service Group 2**
1. Normal Cost Rate	9.97%	15.57%	15.92%
2. Amortization of UAL over 30 years	4.15%	2.31%	0.67%
3. Total Contribution Rate	14.12%	17.88%	16.59%
4. Member Contribution Rate	4.50%	8.94%	6.64%
5. Employer Contribution Rate (3) - (4)	9.62%	8.94%	9.95%
6. Statutory/Expected Contribution	6.95%	8.94%	9.95%
7. Shortfall (5) – (6)	2.67%	0.00%	0.00%
8. Years to Amortize (Based on (6))	Infinite	30	30
9. Unfunded Actuarial Liability ($M)	$4,822	$37	$35
10. Funded Ratio	80.5%	91.0%	96.0%

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXPERIENCE FOR THE LAST PLAN YEAR

Numerous factors contributed to the change in the Systems' assets, liabilities and remaining amortization period for the unfunded actuarial liability between June 30, 2008 and June 30, 2009. The components are examined in the following discussion.

ASSETS

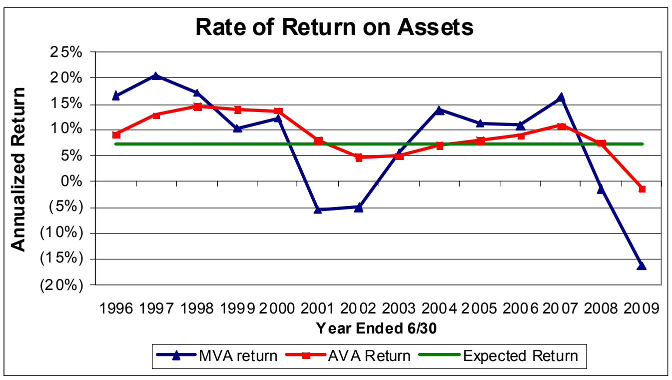
As of June 30, 2009, the System (including Special Service groups) had total assets of $17.6 billion, when measured on a market value basis, **excluding the Favorable Experience Dividend (FED) reserve account**. This was a decrease of $4.2 billion from the prior year.

The market value of assets is not used directly in the calculation of the unfunded actuarial liability (UAL) and actuarial contribution rates. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation. This amount, called the "actuarial value of assets", is equal to the expected asset value, based on the prior year actuarial value and the assumed interest rate of 7.5%, plus 25% of the difference between the actual market value and the expected asset value. The resulting value must be no less than 80% of market value and no more than 120% of market value (referred to as a corridor). The corridor applied this year and the actuarial value of assets was set equal to 120% of market value. The actuarial value of assets as of June 30, 2009 was $21.1 billion, a decrease of $0.7 billion from the prior year. The components of change in the asset values are shown in the following table:

	Market Value ($M)		Actuarial Value ($M)	
Net Assets, June 30, 2008	$	**21,844**	$	**21,857**
• Employer and Member Contributions	+	696	+	696
• Benefit Payments and Refunds	-	1,149	-	1,149
• Expected Investment Income, net of expenses (Based on 7.5% assumption)	+	1,622	+	1,623
• Actuarial Gain/Loss on Investment Return	-	5,410	-	1,356
Net Assets, June 30, 2009 Before FED Transfer	$	**17,603**	$	**21,671**
• FED Transfer Payable January 15, 2009	-	0	-	0
Net Assets, June 30, 2009 After FED Transfer	$	**17,603**	**$**	**21,671**
• Application of Corridor	-	0	-	547
Final Net Assets, June 30, 2009	**$**	**17,603**	**$**	**21,124**

On a market value basis, the time-weighted rate of return was -16.27% as reported by IPERS. The dollar-weighted rate of return, net of investment and administrative expenses, measured on the actuarial value of assets was -1.3%.

Please see Exhibits 2 and 3 in Section II of this report for a summary of market and actuarial value of assets by group (Regular, Special Service 1 and Special Service 2) as of June 30, 2009.



Rates of return on the actuarial value of assets are much smoother than market value returns, illustrating the advantage of using an asset smoothing method.

LIABILITIES

The actuarial liability is that portion of the present value of future benefits that will not be paid by future normal costs. The difference between this liability and the actuarial value of assets at the same date is called the unfunded actuarial liability (UAL). The dollar amount of unfunded actuarial liability is reduced if the contributions to the System exceed the normal cost for the year plus interest on the prior year's UAL.

The unfunded actuarial liability by group is shown as of June 30, 2009 in the following table:

($Millions)	**Regular Membership**	**Special Service 1**	**Special Service 2**	**Total***
Actuarial Liability	$24,733	$412	$873	$26,019
Actuarial Value of Assets	19,911	375	838	21,124
Unfunded Actuarial Liability	4,822	37	35	4,895
Funded Ratio	80.5%	91.0%	96.0%	81.2%

*Totals may not add due to rounding.

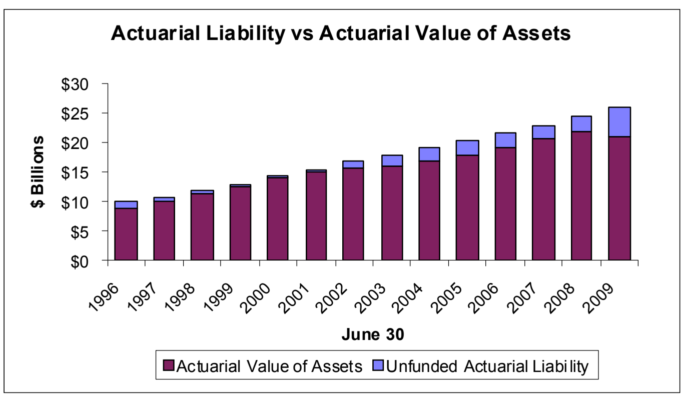
See Exhibit 7 in Section III of the report for the detailed development of the unfunded actuarial liability for each group.

Actuarial gains (losses) result from actual experience that is more (less) favorable than anticipated based on the actuarial assumptions. These "experience" (or actuarial) gains or losses are reflected in the UAL and are measured as the difference between the expected unfunded actuarial liability and the actual unfunded actuarial liability, taking into account any changes due to assumption, methodology or benefit provision changes. Overall, the System experienced a net actuarial loss of $2,039 million.

The net actuarial loss may be explained by considering the separate experience of assets and liabilities. As noted in the previous section, assets had a $1,903 million loss when measured on an actuarial value basis. The liability loss was $136 million (or about 0.5% of total actuarial liability) and arises from demographic experience less favorable than anticipated by the actuarial assumptions. The largest component of this loss was due to actual salary increases for active members that were higher than expected. The average salary increase for members who were active in both the 2008 and 2009 valuations was 7.7%, or about 1.7% higher than expected, resulting in an actuarial loss of about $105 million.

The change in the unfunded actuarial liability between June 30, 2008 and 2009 is shown below (in millions):

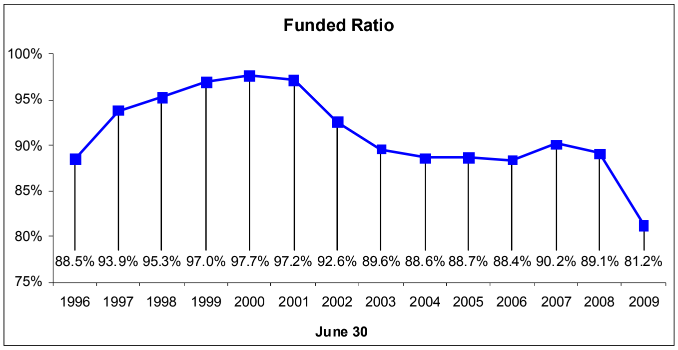
Unfunded Actuarial Liability, June 30, 2008	$	2,665
• Expected increase from amortization method	+	52
• Expected increase from contributions below actuarial rate	+	140
• Investment experience	+	1,903
• Liability and other experience (including transfers)	+	135
Unfunded Actuarial Liability before FED transfer, June 30, 2009	$	4,895
• FED Transfer	+	0
Unfunded Actuarial Liability after FED transfer, June 30, 2009	$	4,895



The dollar amount of the UAL has grown over the past several years due to numerous factors including actual versus expected experience, assumption changes, benefit changes and contributions below the actuarial rate.

An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability and the progress made in its funding is to track the funded ratio, the ratio of the actuarial value of assets to the actuarial liability. The funded status information is shown below (in millions).

	6/30/05	6/30/06	6/30/07	6/30/08	6/30/09
Funded Ratio	88.7%	88.4%	90.2%	89.1%	81.2%
Unfunded Actuarial Liability (UAL)	$2,289	$2,507	$2,266	$2,665	$4,895



Negative investment experience in FY09 caused a significant drop in the funded ratio, which had been stable at around 90% since 2003.

CONTRIBUTION RATE

Under the Entry Age Normal cost method, the actuarial contribution rate consists of two components:

- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date, and
- an "unfunded actuarial liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets on hand.

This valuation calculates the actuarially determined contribution rates effective July 1, 2010 for the year ending June 30, 2011. The regular members contribute according to the Schedule shown later in this section of the report. The remaining 5% of the active members, the Special Service groups, contribute at an actuarially determined rate which changes each year.

See Exhibits 10 and 11 in Section IV for development of these rates which are summarized in the following table:

Contribution Rate for FYE 2011	Regular Membership	Special Service 1	Special Service 2
1. Total Actuarial Contribution Rate	14.12%	17.88%	16.59%
2. Member Contribution Rate	4.50%	8.94%	6.64%
3. Employer Contribution Rate (1) – (2)	9.62%	8.94%	9.95%
4. Employer Statutory Contribution Rate	6.95%	8.94%	9.95%
5. Shortfall (3) – (4)	2.67%	0.00%	0.00%

In 2006 and 2008, legislation was passed that increased the statutory contribution rate for regular members as shown in the table below:

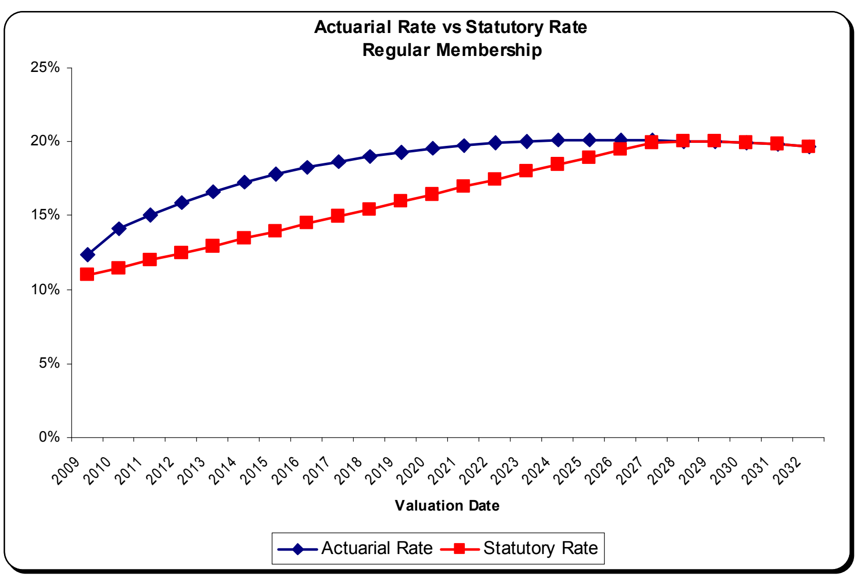
Contribution Rates

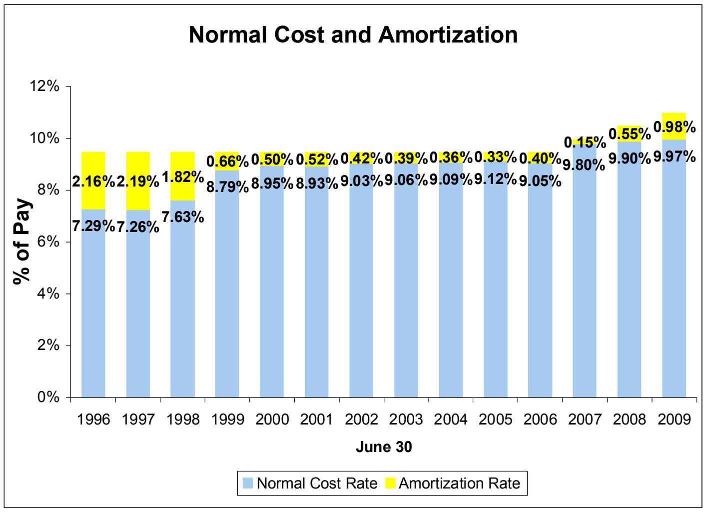
Time Period	Member	Employer	Total
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 and later	Actuarially Determined*		

*May not change by more than 0.50% per year.

Although the entry age normal cost method develops a normal cost rate that is expected to be relatively level, it will fluctuate from year to year depending on the demographic composition of the active members. This year as in past years, the normal cost rate for regular members increased slightly from 9.90% to 9.92% due to changes in the demographic composition of the regular membership group. In addition, the higher contribution rates result in higher benefits for members who elect a refund of contributions because the amount of employer money refunded is higher. As a result, the normal cost rate for regular members increased 0.05% from 9.92% to 9.97%.

Despite the 0.50% increase in the statutory contribution rate this year, there is still only a small part of the total contribution rate that is available to fund the UAL. When future increases in the statutory contribution rate for regular members are considered, higher contributions will be available to fund the UAL. However, given the return on the market value of assets for FY2009, the actual statutory contribution rate is not expected to reach the actuarial contribution rate for nearly 20 years. The contribution rate at that time is expected to be close to 20%. These projections are based on the projection model prepared in conjunction with the 2008 valuation. Updated estimates will be run once the 2009 model has been completed. The actuarial contribution rates in years after FY2011 will be heavily dependent on future investment experience, especially that which occurs in the next few years.

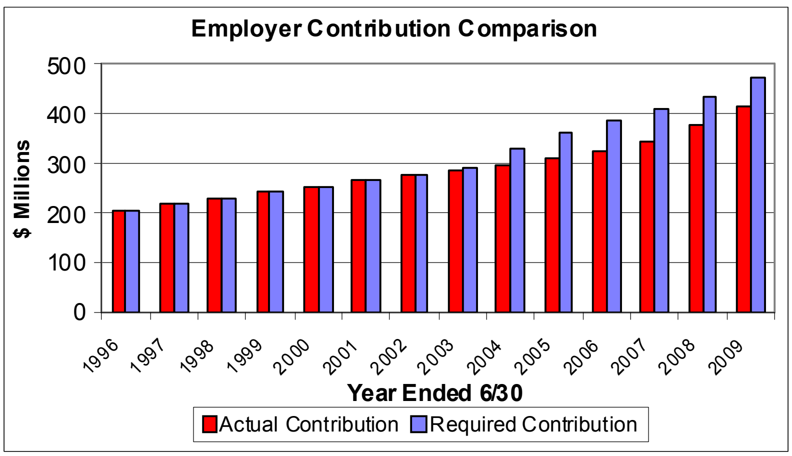




This graph shows the normal cost rate and the contribution rate available to fund the UAL based on the statutory contribution rate applicable for that plan year.

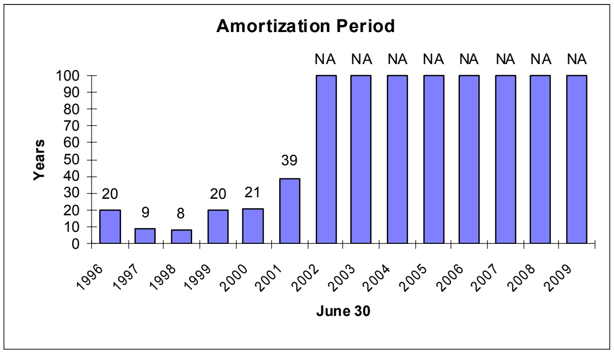
Over the past decade, the normal cost rate has generally increased as a result of benefit improvements, actuarial assumption and method changes, and the increase in entry age. This has left a small portion of the contributions to pay down the UAL.

The following graph shows the total actuarially required employer contribution for regular members compared to the amount actually received in the year. The actuarially required contribution equals the System's normal cost and an amortization payment of the unfunded actuarial liability over 30 years.



IPERS adopted its Funding Policy in 1996 (see Appendix D for a copy of the Funding Policy). The purpose of the Funding Policy is to provide a basis for the evaluation of the System's funded status and to provide a set of safeguards to help ensure the financial solvency of the System. The Funding Policy defines the term "fully funded" to mean the current actuarial value of assets plus the present value of future expected contributions is equal to or greater than the present value of future benefit payments. There is an additional requirement that the amortization period not exceed 30 years in order for the System to be "fully funded".

Based on the current UAL amount and amortization payment for FY2011, the amortization period is infinite. In order for the System to be "fully funded" in the current valuation (the amortization period to be 30 years), the resulting contribution rate would need to increase by 2.67% to 14.12% of payroll. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2009, and applies only for the fiscal year beginning July 1, 2010. The rate necessary for the System to continue to be "fully funded" in future years will change each year as the deferred actuarial investment experience is recognized and other experience (both investment and demographic) impacts the System.



Based on the statutory contribution rate, the period to amortize the UAL has been infinite in the last eight valuations. Future investment experience will have a significant impact on whether the years to amortize fall below 30 in future valuations. As the contribution rate increases in future years, additional funds will be available to finance the UAL and the expectation is that the years to amortize will eventually be a finite number again.

SUMMARY

Despite the use of an asset smoothing method, the System's funded ratio dropped from 89% last year to 81% in this year's valuation, primarily due to the investment experience in FY2009. Most public retirement plans have similar asset allocations and experienced significant asset losses. The investment return on the market value of assets for FY2009 was -16%. When compared to the expected return of +7.50%, the assets were about 24% lower than expected. Such a dramatic drop in the asset value results in a decline in the funded ratio and an increase in the actuarially required contribution. If the contribution rate were determined in this year's valuation with an amortization period of 30 years (which is the requirement in IPERS' Funding Policy for the System to be "fully funded"), the FYE 2011 contribution rate would be 14.12% of payroll, as compared to the statutory FYE 2011 contribution rate of 11.45%. This rate is determined based on the snapshot of the System taken on the valuation date, June 30, 2009, and applies only for the fiscal year beginning July 1, 2010. The rate necessary for the System to continue to be "fully funded" in future years will change each year as the deferred actuarial investment experience is recognized and as other experience (both investment and demographic) impacts the System.

Retirement plans use several mechanisms to provide more stability in the contribution rate. These include an asset smoothing method, which smoothes out the peaks and valleys of investment returns, and amortization of actuarial gains or losses. The System utilizes an asset smoothing method that only recognizes 25% of the difference between expected value on assets, using the assumed rate of return, and actual market return. However, the resulting value must be no less than 80% and no more than 120% of market value (referred to as a corridor). The 120% limit on the corridor did apply this year.

Given the size of the investment loss, a significant increase in the actuarially required contribution level could not be avoided, even with the use of these "stability mechanisms". The normal cost rate remained fairly stable as a percentage of payroll, but the System's unfunded actuarial accrued liability increased from $2.7 billion to $4.9 billion. As a result, the actuarially required contribution rate increased for all three groups.

As mentioned above, the System utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred (unrecognized) investment experience. The asset smoothing method impacts only the timing of when the actual market experience on the assets is recognized in the valuation process. Due to the dramatically negative return in FY2009, the corridor of 120% of market value applied to the actuarial value of assets this year so actuarial value exceeds the pure market value by 20%. If asset returns are not significantly higher than 7.5% over the next few years, the $3.5 billion of deferred investment experience will be recognized and the actuarially required contribution rate can be expected to increase significantly.

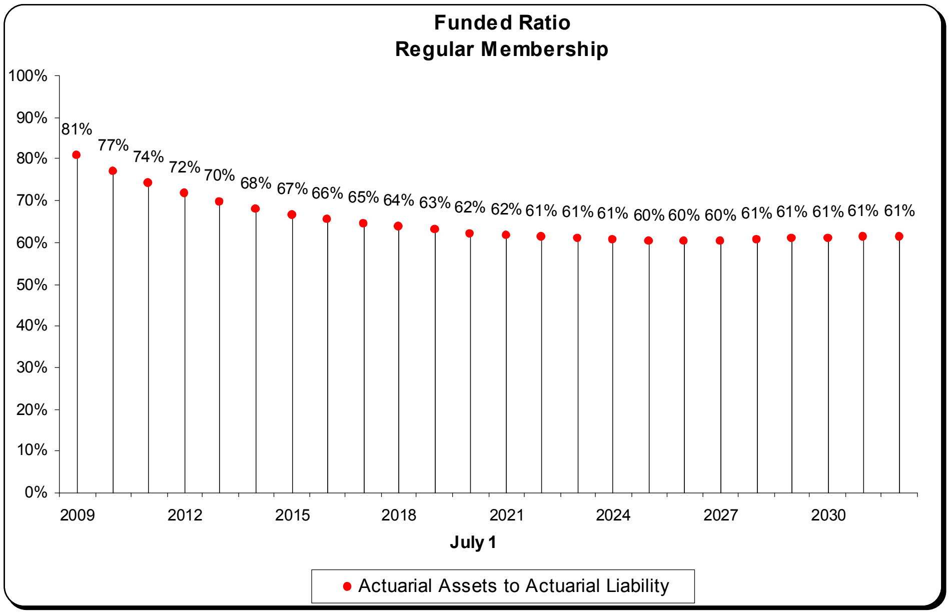
The key valuation results from the June 30, 2009 actuarial valuation are shown below, using both actuarial and market value of assets.

Total System	$(M) Actuarial Value	Market Value
Actuarial Contribution Rate		
Regular:		
Normal Cost	9.97%	9.97%
UAL Contribution	4.15%	7.04%
Total	14.12%	17.01%
UAL	4,822	8,141
Funded Ratio	80.5%	67.1%
SS1		
Normal Cost	15.57%	15.57%
UAL Contribution	2.31%	6.15%
Total	17.88%	21.72%
UAL	37	100
Funded Ratio	91.0%	75.8%
SS2		
Normal Cost	15.92%	15.92%
UAL Contribution	0.67%	3.18%
Total	16.59%	19.10%
UAL	35	175
Funded Ratio	96.0%	80.0%

Historically, markets have recovered following down cycles and, if this happens, it should help offset some of the current deferred losses. The use of an asset smoothing method defers some of the investment experience from FY2009 to later years. Consequently, absent a significant and sustained recovery in the market, part of the unrecognized loss ($3.5 billion) will be reflected in the June 30, 2010 and subsequent years' valuations. Actual investment returns over the next few years will determine exactly how much the System's funding will be affected and the magnitude of the increase in the unfunded actuarial liability and the actuarial contribution rate.

The 2006 Legislature passed legislation that increased the statutory contribution rate from 9.45% to 11.45% over a four-year period commencing July 1, 2007. Legislation passed in 2008 provides IPERS with the authority to implement actuarially determined contribution rates for regular members, but the change in the contribution rate cannot exceed 0.50% per year. The actuarial contribution rate for fiscal year end June 30, 2009 was 12.02%, while the statutory contribution rate was 10.45% of covered payroll. This difference between the actual and actuarial contribution rate increased the unfunded actuarial accrued liability for regular members by about $140 million. Contribution rates in the short term are expected to continue to be less than the actuarial rate. To the extent the System does not have investment returns above the assumed rate of 7.50% or other favorable experience sufficient to offset the contribution shortfall, the unfunded actuarial accrued liability will increase.

The long-term financial health of this retirement system is heavily dependent on two key items: (1) future investment returns and (2) contributions to the System. Given the System's funded status, the magnitude of the deferred investment losses, and the current schedule of contribution rates, the funded ratio of the System is expected to decline and remain around 60%, as shown in the following graph. If, as expected, the funded status declines, it may impact the sustainability of the current benefit structure over the long term. The System has been analyzing options to strengthen the long-term funding of the System. We recommend the discussion continue and action be taken to improve the System's long-term funding.



We conclude this executive summary by presenting comparative statistics and actuarial information on both the June 30, 2009 and June 30, 2008 valuations. All figures shown include the regular membership and the two Special Service Groups.

SUMMARY OF HISTORICAL CHANGE IN IPERS UNFUNDED ACTUARIAL LIABILITY

($Millions)	1996-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09
Unfunded Actuarial Liability (BOY[1])	1,161	661	555	390	327	441	1,255	1,867	2,176	2,289	2,507	2,266	2,665
• **Expected Change**													
− **From Amortization Method**	(1)	(43)	(37)	(32)	(22)	3	24	36	42	22	49	44	52
− **Contributions less than Actuarial Rate**							61	87	103	125	118	127	140
• **Investment Experience**	(474)	(716)	(730)	(781)	(81)	409	402	75	(89)	(235)	(622)	5	1,903
• **Liability and Other Experience**	(25)	118	(211)	515	217	258	125	82	57	242	187	214	135
• **Benefit Enhancements**	0	342	0	142	0	3	0	29	0	0	0	6	0
• **Change in Assumptions/Methods**	0	0	587	0	0	141	0	0	0	64	27	3	0
• **FED Transfer**	0	193	226	93	0	0	0	0	0	0	0	0	0
Unfunded Actuarial Liability (EOY[2])	661	555	390	327	441	1,255	1,867	2,176	2,289	2,507	2,266	2,665	4,895
Amortization Years	9	8	20	21	39	*	*	*	*	*	*	*	*

*Infinite
1 = Beginning of Year
2 = End of Year

IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
PRINCIPAL RESULTS

	June 30, 2009	June 30, 2008	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Members			
(excluding Retired/Reemployed)	167,691	167,823	-0.1
- Projected Payroll for Upcoming Fiscal Year	$6,762M	$6,464M	4.6
- Average Salary	$40,326	$38,515	4.7
2. Inactive Membership			
- Number Not in Pay Status	66,098	64,348	2.7
- Number of Retirees/Beneficiaries	89,718	87,309	2.8
- Average Annual Benefit	$12,443	$11,927	4.3
ASSETS AND LIABILITIES			
1. Net Assets (excluding FED reserve)			
- Market Value	$17,603M	$21,844M	(19.4)
- Actuarial Value	21,124M	21,857M	(3.4)
2. Projected Liabilities			
- Retired Members	$10,623M	$9,923M	7.1
- Inactive Members	538M	510M	5.5
- Active Members	20,287M	19,235M	5.5
- Total Liability	31,449M	29,668M	6.0
3. Actuarial Liability	$26,019M	$24,522M	6.1
4. Unfunded Actuarial Liability	$4,895M	$2,665M	83.7
5. Funded Ratio			
a. Actuarial Value Assets/Actuarial Liability	81.19%	89.13%	(8.9)
b. Market Value Assets/Actuarial Liability	67.66%	89.08%	(24.0)
SYSTEM CONTRIBUTIONS			
Statutory Contribution Rate*	11.45%	10.95%	4.6
Years Required to Amortize Unfunded Actuarial Liability	Infinite	Infinite	N/A
Total Actuarial Contribution Rate	14.12%	12.34%	14.4
Member Contribution Rate	4.50%	4.30%	4.7
Employer Contribution Rate	9.62%	8.04%	19.7

M = ($)Millions

* Contribution rates for certain special groups (5% of the membership) are not fixed by statute but are actuarially determined each year.

SECTION II

SYSTEM ASSETS

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SECTION II

SYSTEM ASSETS

In this section, the values assigned to the assets held by the System are presented. These assets are valued on two different bases: the market value and the actuarial value.

Market Value of Net Assets

For certain accounting statement purposes, System assets are valued at current market prices. These values represent the "snapshot" of the fair value of System assets as of the valuation date.

Actuarial Value of Net Assets

The market value of assets, representing a fair value of System assets, may not necessarily be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

Step 1: Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return on the prior actuarial value of assets and the actual receipts and disbursements of the fund for the previous 12 months.

Step 2: Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.

Step 3: Multiply the difference between market and expected values determined in Step 2 by 25%.

Step 4: Add the expected value of Step 1 and the product of Step 3 to determine the actuarial value of assets.

Step 5: Verify the preliminary actuarial value of assets in Step 4 is not more than 120% of the market value of assets, nor less than 80% of the market value. If it is, adjust the actuarial value of assets so it falls within the 80% - 120% corridor.

EXHIBIT 1

ANALYSIS OF NET ASSETS AT MARKET VALUES

($ Millions)

	June 30, 2009		June 30, 2008*	
	Amount	% of Total	Amount	% of Total
Cash & Equivalents	$ 285	1.6%	$ 183	0.8%
Capital Assets, Receivables and Payables	(1,027)	(5.7)	(2,266)	(10.1)
Domestic Equity	4,370	24.3	5,856	26.2
International Equity	2,390	13.3	3,184	14.2
Fixed Income	7,623	42.4	9,636	43.1
Real Estate	1,502	8.4	2,073	9.3
Private Equity/Debt	2,080	11.6	2,504	11.2
Securities Lending Collateral Pool	751	4.1	1,199	5.3
TOTAL NET ASSETS	$ 17,974	100.0%	$ 22,369	100.0%
FED Reserve (Before current year transfer)	(371)		(525)	
Current Year FED Transfer Payable	0		0	
Net Retirement System Assets	$ 17,603		$ 21,844	

* After the June 30, 2008 valuation was prepared, IPERS determined that the value of the securities lending collateral pool should have been $1,201 million.

EXHIBIT 2

SUMMARY OF FUND ACTIVITY
(Market Value)

	Regular Membership	Special Service Group 1*	Special Service Group 2**	FED Reserve	Total
NET RETIREMENT SYSTEM ASSETS ON JUNE 30, 2008* **	$20,607,854,310	$379,900,837	$856,357,059	$524,928,341	$22,369,040,547
Adjustment after issuing report	1,437,798	25,805	52,497	38,342	1,554,442
ADJUSTED VALUE OF ASSETS	$20,609,292,108	$379,926,642	$856,409,556	$524,966,683	$22,370,594,989
REVENUE					
Employer contributions	384,221,534	6,365,911	24,736,688	0	415,324,133
Member contributions	248,087,314	6,365,911	16,481,368	0	270,934,593
Service purchase	8,952,266	70,215	278,190	0	9,300,671
Investment income	(3,530,813,734)	(65,586,877)	(149,764,290)	(85,056,904)	(3,831,221,805)
Total Revenue	($2,889,552,620)	($52,784,840)	($108,268,044)	($85,056,904)	($3,135,662,408)
DISBURSEMENTS					
Benefit payments	1,076,766,225	14,988,650	22,900,588	68,463,353	1,183,118,816
Member and employer refunds	30,560,299	790,184	2,986,970	0	34,337,453
Administrative expenses	10,525,647	70,742	300,477	0	10,896,866
Investment expenses	29,987,412	557,033	1,271,957	722,393	32,538,795
Total Expenses	$1,147,839,583	$16,406,609	$27,459,992	$69,185,746	$1,260,891,930
PRELIMINARY NET ASSETS ON JUNE 30, 2009	$16,571,899,905	$310,735,193	$720,681,520	$370,724,033	$17,974,040,651
TRANSFERS					
Membership changes	20,822,225	1,778,613	(22,600,838)	0	0
FED Reserve	0	0	0	0	0
ADJUSTED NET ASSETS ON JUNE 30, 2009	$16,592,722,130	$312,513,806	$698,080,682	$370,724,033	$17,974,040,651

* Includes Sheriffs and Deputies
** Includes all other public safety members
*** As used in the June 30, 2008 valuation report

EXHIBIT 3

ACTUARIAL VALUE OF NET ASSETS

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
1. Actuarial Value of Assets as of June 30, 2008	$20,620,880,399	$379,628,831	$856,913,953	$21,857,423,183
2. Actual Receipts/Disbursements				
a. Contributions	641,261,114	12,802,037	41,496,246	695,559,397
b. Benefit Payments and Refunds	1,107,326,524	15,778,834	25,887,558	1,148,992,916
c. Net Change	(466,065,410)	(2,976,797)	15,608,688	(453,433,519)
3. Expected Value of Assets as of June 30, 2009 [(1) x 1.075] + [(2c) x $(1.075)^{.5}$]	21,684,219,527	405,014,585	937,365,932	23,026,600,044
4. Preliminary Market Value of Assets as of June 30, 2009	16,571,899,905	310,735,193	720,681,520	17,603,316,618
5. Difference Between Market and Expected Values (4) - (3)	(5,112,319,622)	(94,279,392)	(216,684,412)	(5,423,283,426)
6. Preliminary Actuarial Value of Assets as of June 30, 2009 (3) + [(5) x 25%]	20,406,139,622	381,444,737	883,194,829	21,670,779,188
7. Transfers				
a. Membership changes	25,633,455	2,189,583	(27,823,039)	0
b. FED Reserve	0	0	0	0
8. Initial Actuarial Value of Assets as of June 30, 2009	$20,431,773,077	$383,634,320	$855,371,790	$21,670,779,187
9. Determination of Corridor				
a. 80% of Market Value of Assets	13,274,177,704	250,011,045	558,464,546	14,082,653,295
b. 120% of Market Value of Assets	19,911,266,556	375,016,567	837,696,819	21,123,979,942
10. Final Actuarial Value of Assets as of June 30, 2009 (8) , but not less than (9a), nor greater than (9b)	19,911,266,556	375,016,567	837,696,819	21,123,979,942

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 4

HISTORICAL COMPARISON (ACTUARIAL AND MARKET)

Value as of June 30		Actuarial Value of Net Assets (AVA)	Market Value of Net Assets (MVA)	AVA/MVA
1996		$8,975,396,251	$9,587,104,982	94%
1997		10,112,976,077	11,533,968,923	88%
1998	*	11,352,674,142	13,463,899,832	84%
1999	*	12,664,031,437	14,814,311,451	85%
2000	*	14,145,141,535	16,473,516,141	86%
2001		15,112,424,729	15,357,519,356	98%
2002		15,613,114,099	14,387,799,637	109%
2003		16,120,476,011	14,915,941,546	108%
2004		16,951,942,539	16,726,227,853	101%
2005		17,951,490,071	18,224,067,613	99%
2006		19,144,036,519	19,847,676,903	96%
2007		20,759,628,415	22,624,387,015	92%
2008		21,857,423,183	21,844,112,206	92%
2009		21,123,979,942	17,603,316,618	120%

Values are for combined regular membership and Special Service groups, but exclude the Favorable Experience Dividend Reserve Account.

*Reflects reduction for transfers to the Favorable Experience Dividend Reserve Account.

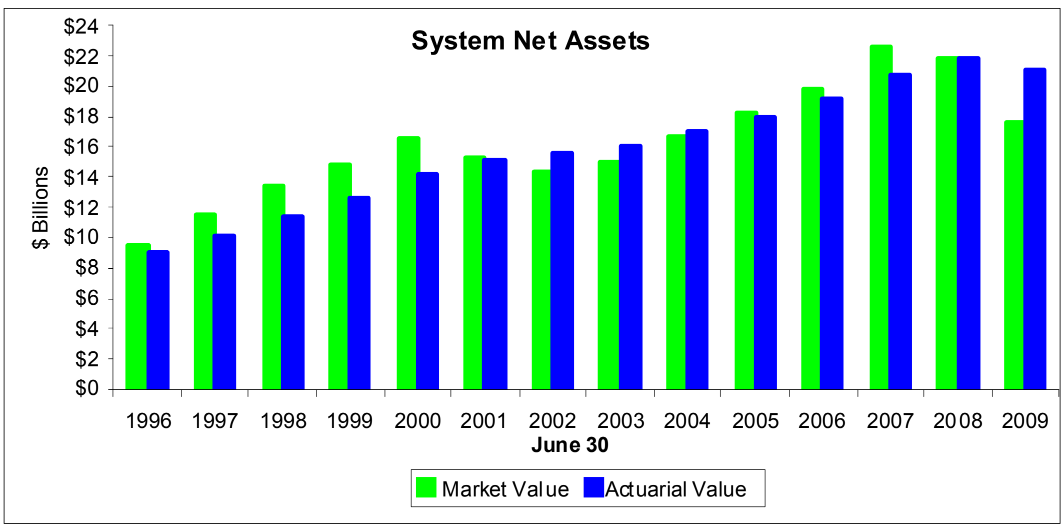

EXHIBIT 5

SUMMARY OF FAVORABLE EXPERIENCE DIVIDEND RESERVE

Market Value of FED Reserve as of June 30, 2009	$	370,724,033
Transfer to FED Payable on January 15, 2010 Based on June 30, 2009 Valuation Results	$	0
Total Value of FED Reserve as of June 30, 2009	$	370,724,033

Payments to retirees from the FED reserve account are not a guaranteed benefit. The System Administration determines each year whether payments will be made and the percentage multiplier factor to be used for each year of retirement, up to the maximum 3% allowed by law. Factors considered by the Administration in this determination include, but are not limited to, the current value of the FED reserve account, past year payments from the reserve, the likelihood of future credits to and payments from the reserve, and distributions paid as a dividend under 97B.49F(1).

Based on the June 30, 2009 balance in the FED reserve and assuming (1) a 7.5% rate of return on the market value of assets in the future and (2) all other assumptions are exactly met, the FED reserve is projected to be sufficient to make payments through the dates shown below.

Estimated Potential Payments (in millions) from the FED on January 31:

	Maximum*	Expected**
2010	$218.7	$78.0
2011	180.6 ***	88.8
2012	-	100.6
2013	-	113.3
2014	-	63.9 ***
2015	-	-
2016	-	-
2017	-	-

* Based on the maximum payment of 3% for each year since retirement.
** Based on 1.07% for each year since retirement.
*** Payment is equal to the remaining FED reserve balance.

SECTION III

SYSTEM LIABILITIES

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SECTION III

SYSTEM LIABILITIES

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. There are several methods used to allocate the cost of benefits to members' working lifetimes. These mathematical techniques are called actuarial cost methods.

The method used for this valuation is referred to as the "entry age normal" actuarial cost method. In general, under this method, a contribution that is a level percent of rates of pay is determined for each member, which if paid from date of hire to retirement date, will finance all future benefit payments. The level percent of pay that is developed is called the **"normal cost"**. The sum of the individual normal cost dollar amounts is divided by covered payroll to determine the normal cost rate for the System.

The actuarial liability is that portion of the present value of future benefits (PVFB) that will not be paid by the normal costs in future years. The difference between this liability and the actuarial value of assets as of the same date is referred to as the **unfunded actuarial liability (UAL).** If contributions exceed the normal cost for the year, after allowing for interest on the previous balance of the UAL, this liability will be reduced. Benefit improvements, experience gains and losses, and changes in actuarial assumptions or procedures will also have an effect on the total actuarial liability and on the portion of it that is unfunded.

The UAL is amortized over 30 years. The UAL is projected to the following year to reflect the time lag from the valuation date to the date the contribution rates are effective.

Effective with the June 30, 2008 valuation, a transfer of assets is performed as of June 30th for all members whose membership group changed since the prior valuation. The purpose behind the transfer is to better match the assets and liabilities for each membership group by having both the assets and liabilities for each member reside in their current membership group. When members move between membership groups, an asset transfer for valuation purposes is made based on the funded ratio of their former group prior to the transfer. The asset transfer calculation is determined by multiplying the actuarial liability of the members transferring by the funded ratio of their former group just prior to the transfer. The asset values after the transfers and the liabilities for the members reside in their current membership group and are used to prepare the final valuation results. A summary of the transfer information is shown below:

A summary of the number of members who transferred is shown below:

From	To		
	Regular	SS1	SS2
Regular		58	749
SS1	8		18
SS2	634	63	

The impact on the UAL from the transfer is shown below:

Regular	SS1	SS2	Net Change
$(7,255,632)	$647,450	$5,520,418	$(1,087,764)

EXHIBIT 6

PRESENT VALUE OF FUTURE BENEFITS
as of June 30, 2009

The actuarial present value of future benefits represents the current value of benefits expected to ultimately be earned by the current members of the System as of the valuation date.

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
Present Value of Future Benefits:				
Active Members				
Retirement benefits	$17,026,700,853	$282,192,034	$639,291,632	$17,948,184,519
Death benefits	295,801,364	5,093,528	23,307,126	324,202,018
Termination benefits	1,058,000,079	39,559,933	165,646,067	1,263,206,079
Disability benefits	505,990,162	39,875,431	205,833,662	751,699,255
Inactive Members				
Vested members	480,861,825	5,685,056	19,817,319	506,364,200
Nonvested members	31,154,070	95,864	660,000	31,909,934
Retired Members and Beneficiaries	10,238,166,793	150,926,387	234,387,583	10,623,480,763
Total Present Value of Future Benefits	$29,636,675,146	$523,428,233	$1,288,943,389	$31,449,046,768

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 7

UNFUNDED ACTUARIAL LIABILITY
as of June 30, 2009

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
1. Present Value of Future Benefits	$29,636,675,146	$523,428,233	$1,288,943,389	$31,449,046,768
2. Present Value of Future Normal Costs	4,903,191,525	111,261,132	416,000,288	5,430,452,945
3. Actuarial Liability (1) - (2)	$24,733,483,621	$412,167,101	$872,943,101	$26,018,593,823
4. Actuarial Value of Net Assets	19,911,266,556	375,016,567	837,696,819	21,123,979,942
5. Unfunded Actuarial Liability (3) - (4)	$4,822,217,065	$37,150,534	$35,246,282	$4,894,613,881

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 8

CALCULATION OF ACTUARIAL (GAIN)/LOSS AND ANY TRANSFER TO THE FAVORABLE EXPERIENCE DIVIDEND RESERVE
Based on the June 30, 2009 Actuarial Valuation

The Favorable Experience Dividend (FED) reserve account was created by legislation in 1998. The main purpose of the account is to help offset the negative impact of postretirement inflation for members who retired after June 30, 1990. The law provided that a portion of the favorable actuarial experience, if any, in subsequent years would be transferred to the FED reserve. Legislation passed in 2000 capped the FED reserve at ten years of expected payouts at the maximum level. Further legislation in 2006 prohibited further transfers to the FED until the System has no remaining UAL. The System experienced a loss for the year so no transfer is to be made this year.

1. June 30, 2008 Unfunded Actuarial Liability	$	2,664,793,406
2. Normal Cost as of June 30, 2008		654,916,018
3. Employer and Member Contributions*		686,258,726
4. Change due to membership transfers		(1,087,764)
5. Expected Unfunded Actuarial Liability as of June 30, 2009 $[(1)+(2)] * 1.075 - [(3) * (1.075)^{.5}] + (4)$		2,856,071,676
6. Actual Unfunded Actuarial Liability as of June 30, 2009		4,894,613,881
7. (Gain)/loss (6) - (5)		2,038,542,205
8. Portion of gain to transfer to FED		N/A
9. Amount of Actuarial Value of Assets to transfer to FED	$	0
10. Market value of FED transfer	$	0

* Does not include service purchases

SECTION IV

SYSTEM CONTRIBUTIONS

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SECTION IV

SYSTEM CONTRIBUTIONS

Under the funding method described in Appendix C, the contribution rate consists of two elements: (1) the normal cost rate and (2) the contribution rate to amortize the unfunded actuarial liability as a level percent of payroll. The unfunded actuarial liability represents the difference between the portion of the present value of future benefits allocated to service credited prior to the valuation date by the actuarial cost method and the actuarial value of assets as of that date.

Although the entry age normal cost method develops a normal cost rate that is expected to be relatively level, it will fluctuate from year to year depending on the demographic composition of the active members. This year, as in past years, the normal cost rate for regular members increased slightly from 9.90% to 9.92% due to changes in the demographic composition of the regular membership group.

Legislation was passed in 2006 and 2008 that increases the statutory contribution rate for regular members as shown in the table below:

Contribution Rates			
Time Period	**Member**	**Employer**	**Total**
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 and later	Actuarially Determined*		

*May not change by more than 0.50% per year

The increased contribution rates for regular members result in slightly larger benefits for members who elect a refund of contributions because the amount of employer refund increases. Therefore, the normal cost rate for regular members was 9.97%, while it would have been 9.92% in the absence of this increase.

Effective with the June 30, 2008 valuation, a transfer of assets is performed on June 30th for all split service members (those members with service in more than one membership group) whose membership group changed since the prior valuation. As a result, all assets and liabilities for each member reside in their current membership group. When members move between membership groups, an asset transfer for valuation purposes is made based on the funded ratio of their former group prior to the transfer. The asset transfer calculation is determined by multiplying the actuarial liability of the members transferring by the funded ratio of their former group just prior to the transfer. The asset values after the transfers and the liabilities for the members reside in their current membership group and are used to prepare the final valuation results.

EXHIBIT 9

ACTUARIAL BALANCE SHEET
as of June 30, 2009

	Regular Membership	Special Service Group 1*	Special Service Group 2**	Total
ASSETS				
Actuarial value of assets	$19,911,266,556	$375,016,567	$837,696,819	$21,123,979,942
Present value of future normal costs	4,903,191,525	111,261,132	416,000,288	5,430,452,945
Present value of future contributions to amortize unfunded actuarial liability	4,822,217,065	37,150,534	35,246,282	4,894,613,881
Total Net Assets	$29,636,675,146	$523,428,233	$1,288,943,389	$31,449,046,768
LIABILITIES				
Present Value of Future Benefits:				
Retired Members and Beneficiaries	$10,238,166,793	$150,926,387	$234,387,583	$10,623,480,763
Active Members	18,886,492,458	366,720,926	1,034,078,487	20,287,291,871
Inactive Members	512,015,895	5,780,920	20,477,319	538,274,134
Total Liabilities	$29,636,675,146	$523,428,233	$1,288,943,389	$31,449,046,768

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 10

ANALYSIS OF CONTRIBUTION RATE
FOR REGULAR MEMBERSHIP

The actuarial cost method used to determine the required level of annual contributions by the members and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability payment. The statutory contribution rate is first applied to payment of the normal cost rate. The remaining contribution is used to amortize the unfunded actuarial liability as a level percentage of payroll, which determines the period necessary to amortize the unfunded actuarial liability. According to IPERS Funding Policy, the System is considered to be "fully funded" if the amortization period does not exceed 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2009 actuarial valuation and applies to the fiscal year beginning July 1, 2010 and ending June 30, 2011. The statutory contribution rate for that period is 11.45%, reflecting the last of four scheduled increases provided by 2006 legislation.

		Regular Membership
1. FYE 2010 Contribution Rate		10.95%
2. Normal Cost Rate		9.97%
3. Contribution Rate Applied to Fund the UAL for FYE 2009 (1) - (2)		0.98%
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2009	$	4,822,217,065
5. Expected Payroll for FYE 2010	$	6,363,917,301
6. Projected UAL on June 30, 2010 $[(4) \times 1.075] - [(3) \times (5) \times 1.075^{.5}]$	$	5,119,220,496
7. Amortization Period to Fund the UAL/Surplus		30 years
8. Amortization Factor (Level % of Pay)		19.33574
9. UAL Contribution Adjusted to Mid-year of FYE 2011 $[(6) / (8)] \times (1.075)^{.5}$	$	274,503,111
10. Expected Payroll for FYE 2011 (5) x 1.04	$	6,618,473,993
11. UAL Contribution Rate for FYE 2011 (9) / (10)		4.15%
12. Actuarial Contribution Rate for FYE 2011 (2) + (11)		14.12%
13. Amortization Period Necessary to Finance UAL as a Level Percent of Payroll with Contribution Rate of 11.45% *		Cannot be amortized

* Assuming all actuarial assumptions are met in the future.

EXHIBIT 11

CALCULATION OF CONTRIBUTION RATES FOR SPECIAL SERVICE GROUPS

The actuarial cost method used to determine the actuarial contribution rate to be paid by the members and the employers to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate plus the unfunded actuarial liability/surplus payment. The payment to amortize the unfunded actuarial liability/(surplus) is determined as a level percentage of payroll, with an amortization period of 30 years.

The contribution rate developed in this exhibit is based on the June 30, 2009 actuarial valuation and applies to the fiscal year beginning July 1, 2010.

		Special Service Group 1*			Special Service Group 2**	
1. FYE 2010 Contribution Rate		15.24%			15.34%	
2. Normal Cost Rate		15.57%			15.92%	
3. Contribution Rate Applied to Fund the UAL (1) - (2)		(0.33%)			(0.58%)	
4. Unfunded Actuarial Liability(UAL)/Surplus on June 30, 2009	$	37,150,534		$	35,246,282	
5. Expected Payroll for FYE 2010	$	90,255,078		$	308,079,952	
6. Projected UAL on June 30, 2010 $[(4) \times 1.075] - [(3) \times (5) \times 1.075^{.5}]$	$	40,245,633		$	39,742,413	
7. Amortization Period to Fund the UAL/Surplus		30 years			30 years	
8. Amortization Factor (Level % of Pay)		19.33574			19.33574	
9. UAL Contribution Adjusted to Mid-year FYE 2011 $[(6) / (8)] \times (1.075)^{.5}$	$	2,158,053		$	2,131,070	
10. Expected Payroll for FYE 2011 (5) x 1.04	$	93,865,281		$	320,403,150	
11. UAL Contribution Rate for FYE 2011 (9) / (10)		2.31%			0.67%	
12. Actuarial Contribution Rate for FYE 2011 (2) + (11)		17.88%			16.59%	
Employer Contribution Rate		8.94%	(50%)		9.95%	(60%)
Employee Contribution Rate		8.94%	(50%)		6.64%	(40%)

* Includes Sheriffs and Deputies

** Includes all other public safety members

SECTION V

PLAN ACCOUNTING INFORMATION

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SECTION V

PLAN ACCOUNTING INFORMATION

GASB Statement No. 25, as amended by GASB Statement No. 50, establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.
- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

EXHIBIT 12

SUMMARY OF MEMBERSHIP

	June 30, 2009	June 30, 2008
Active Employees:		
Vested	127,308	125,542
Not yet vested	40,383	42,281
Total active employees*	167,691	167,823
Retirees and beneficiaries currently receiving benefits:	89,718	87,309
Inactive vested members entitled to benefits but not yet receiving them:	28,240	27,626

*Retired/reemployed members are included in retiree counts, but not the active count. Counts are 8,427 for 2009 and 8,523 for 2008.

EXHIBIT 13

SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Actuarial Valuation Date	Net Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (P/R) (c)	UAL as a Percentage of Covered P/R [(b-a)/c]
6/30/04	$16,951,942,539	$19,128,410,606	$2,176,468,067	88.62%	$5,072,027,906	42.91%
6/30/05	17,951,490,071	20,240,098,667	2,288,608,596	88.69%	5,236,860,886	43.70%
6/30/06	19,144,036,519	21,651,122,419	2,507,085,900	88.42%	5,523,863,321	45.39%
6/30/07	20,759,628,415	23,026,113,782	2,266,485,367	90.16%	5,781,706,199	39.20%
6/30/08	21,857,423,183	24,522,216,589	2,664,793,406	89.13%	6,131,445,367	43.46%
6/30/09	21,123,979,942	26,018,593,823	4,894,613,881	81.19%	6,438,643,124	76.02%

EXHIBIT 14

SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Actuarially Required Employer Contribution (ARC) is determined based on GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans. The dollar amount of ARC is calculated by dividing the contributions paid by the regular membership for the fiscal year by the statutory contribution rate to determine covered payroll for the year. The covered payroll is then multiplied by the actuarial contribution rate including the normal cost and 30-year amortization of the UAL from the actuarial valuation two years prior (the June 30, 2007 valuation sets the ARC for FY09). The resulting dollar amount of ARC for the regular membership is added to the actual contributions paid by the Special Service 1 and the Special Service 2 employers to determine the total ARC for the fiscal year.

	Actuarially Required Contributions (ARC)				**Percentage of ARC Contributed**			
Fiscal Year Ending	**Regular Membership**	**Special Service Group 1***	**Special Service Group 2****	**Total**	**Regular Membership**	**Special Service Group 1***	**Special Service Group 2****	**Total**
6/30/04	$309,006,609	$5,489,797	$14,263,836	$328,760,242	90.3%	100.0%	100.0%	90.9%
6/30/05	341,552,685	6,236,611	15,391,729	363,181,025	84.7%	100.0%	100.0%	85.6%
6/30/06	364,424,911	6,228,675	16,888,833	387,542,419	82.7%	100.0%	100.0%	83.8%
6/30/07	387,578,925	6,577,652	17,723,013	411,879,590	82.2%	100.0%	100.0%	83.3%
6/30/08	408,882,080	6,301,171	17,644,966	432,828,217	86.4%	100.0%	100.0%	87.2%
6/30/09	441,951,764	6,365,911	24,736,688	473,054,363	86.9%	100.0%	100.0%	87.8%

* Includes Sheriffs and Deputies
** Includes all other public safety members

EXHIBIT 15

EXPECTED BENEFIT PAYMENTS

The following chart shows the expected benefit payments to be made over the next 20 years. These payments include those expected to be made to current retirees and beneficiaries, current active members, and current deferred vested members (included in the active values) if all actuarial assumptions are met in future years. The benefits reflected include expected refunds and death benefits as well as annuity payments.

These payouts do not include any current nonvested inactive members, any future members, or any FED payments.

Fiscal Year End	Actives at 6/30/09	Retirees at 6/30/09	Total
2010	$ 143,666,000	$ 1,114,073,000	$ 1,257,739,000
2011	276,497,000	1,094,965,000	1,371,462,000
2012	411,050,000	1,074,480,000	1,485,530,000
2013	548,741,000	1,052,763,000	1,601,504,000
2014	690,441,000	1,029,934,000	1,720,375,000
2015	829,775,000	1,005,782,000	1,835,557,000
2016	969,117,000	980,587,000	1,949,704,000
2017	1,109,717,000	954,087,000	2,063,804,000
2018	1,251,017,000	926,314,000	2,177,331,000
2019	1,390,589,000	897,600,000	2,288,189,000
2020	1,528,967,000	868,253,000	2,397,220,000
2021	1,664,873,000	838,175,000	2,503,048,000
2022	1,799,043,000	807,209,000	2,606,252,000
2023	1,931,157,000	775,404,000	2,706,561,000
2024	2,059,106,000	742,826,000	2,801,932,000
2025	2,183,053,000	709,532,000	2,892,585,000
2026	2,303,890,000	675,604,000	2,979,494,000
2027	2,421,618,000	641,119,000	3,062,737,000
2028	2,534,964,000	606,181,000	3,141,145,000
2029	2,644,257,000	570,899,000	3,215,156,000

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

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APPENDIX A

SUMMARY STATISTICS ON SYSTEM MEMBERSHIP

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RECONCILIATION OF ACTIVE MEMBERS

Below is a summary of the changes in active members (excluding retired re-employed members) between June 30, 2008 and June 30, 2009.

	Regular Membership	Special Service Groups		Total
		Group 1	Group 2	
7/1/2008 Starting count	159,241	1,520	7,062	167,823
New actives	13,351	37	641	14,029
Returning actives	2,425	11	100	2,536
Nonvested Terminations	(5,699)	(1)	(169)	(5,869)
Elected Refund	(2,105)	(8)	(133)	(2,246)
Vested Terminations	(3,760)	(17)	(145)	(3,922)
Total Withdrawals	(11,564)	(26)	(447)	(12,037)
Deaths	(147)	(2)	(5)	(154)
Disability Retirements	(96)	0	(7)	(103)
AE Benefits	(423)	0	(2)	(425)
Early Retirements	(1,130)	0	0	(1,130)
Unreduced Retirements	(2,622)	(56)	(125)	(2,803)
Total Retirements	(4,271)	(56)	(134)	(4,461)
Other/transfer	(65)	46	(26)	(45)
6/30/2009 Ending count	158,970	1,530	7,191	167,691

HISTORICAL SUMMARY OF MEMBERS

The following table displays selected historical data (including regular and both Special Service groups) as available.

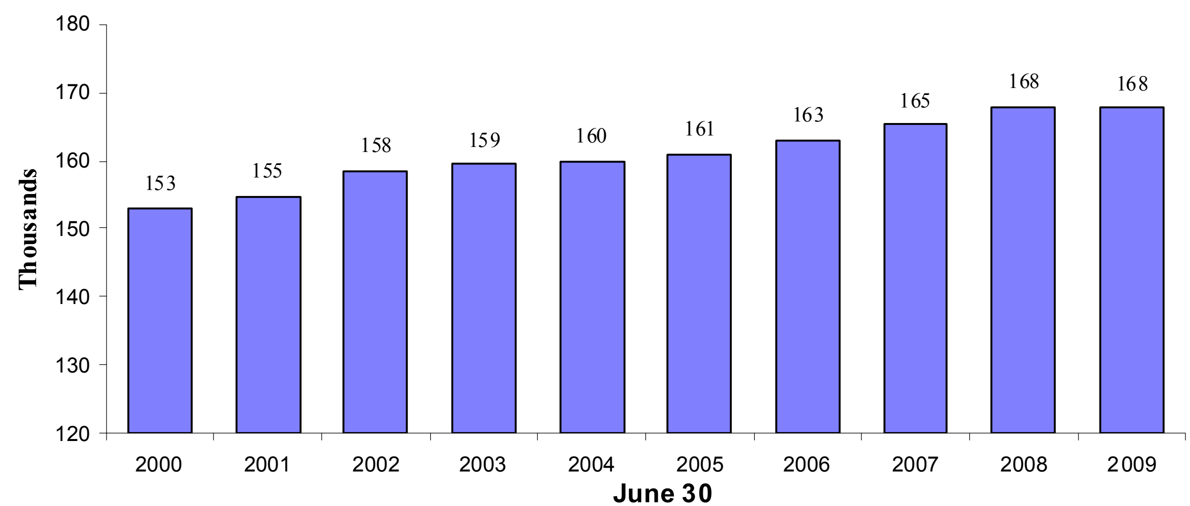
Valuation		Active Members						Number			
			Average								
Date June 30	Total Count	Number	Age	Entry Age	Service	Annual Pay ($)	Pay Increase	Retired Reemployed	Inactive Vested	Retired	Act/Ret Ratio
1991	206,105	135,104	43.7			21,885				49,881	2.71
1992	207,860	134,485	44.3			22,510	2.9%			51,247	2.62
1993	211,862	136,409	43.9			22,604	0.4%			54,212	2.52
1994	216,989	141,423	44.2			22,968	1.6%			54,295	2.60
1995	216,973	144,912	44.1			23,322	1.5%			56,353	2.57
1996	221,891	147,431	44.2			25,218	8.1%			57,914	2.55
1997	224,357	147,736	44.6	33.1	11.5	26,031	3.2%		28,377	59,320	2.49
1998	241,767	148,917	44.7	33.2	11.5	26,767	2.8%		31,202	61,648	2.42
1999	250,168	152,440	44.8	33.4	11.4	27,322	2.1%	4,853	34,332	63,396	2.40
2000	249,970	153,039	44.8	33.2	11.6	29,032	6.3%	5,050	31,219	65,712	2.33
2001	255,963	154,610	45.0	33.5	11.5	30,341	4.5%	4,886	32,650	68,703	2.25
2002	264,974	158,467	45.1	33.8	11.3	32,119	5.9%	5,387	34,792	71,715	2.21
2003	268,813	159,310	45.2	33.8	11.4	31,950	-0.5%	6,126	35,375	74,128	2.15
2004	272,573	160,003	45.4	33.8	11.6	33,082	3.5%	6,438	35,788	76,782	2.08
2005	267,214	160,876	45.6	33.8	11.8	34,066	3.0%	6,592	26,919	79,419	2.03
2006	271,007	163,052	45.7	34.0	11.7	35,475	4.1%	8,044	25,918	82,037	1.99
2007	276,421	165,216	45.7	34.0	11.7	36,615	3.2%	7,848	26,435	84,770	1.95
2008	282,778	167,823	45.7	34.1	11.6	38,515	5.2%	8,523	27,626	87,309	1.92
2009	294,076	167,691	46.0	34.2	11.8	40,326	4.7%	8,427	28,240	89,718	1.87

Note: Retired count includes retired reemployed members.

SUMMARY OF ACTIVE MEMBERS

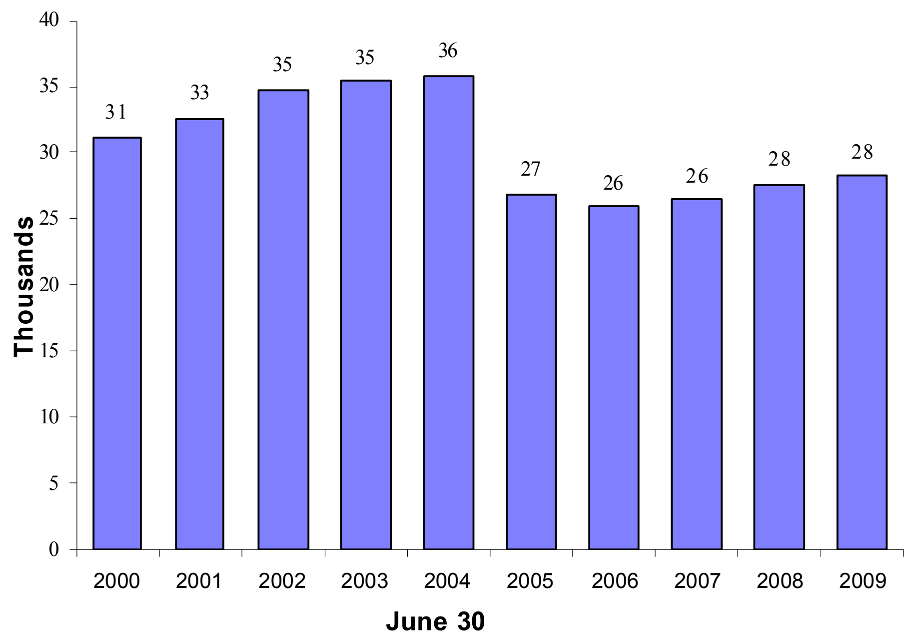
	Regular Membership	Special Service Groups Group 1	Group 2	Total 06/30/2009	Total 06/30/2008	Percent Change
Total Employees	158,970	1,530	7,191	167,691	167,823	-0.1
Projected Covered Payroll* (millions)	$6,364	$90	$308	$6,762	$6,464	4.6
Average Age	46.2	41.0	41.8	46.0	45.7	0.7
Average Entry Age	34.4	26.9	31.6	34.2	34.1	0.3
Average Earnings*	$40,032	$58,990	$42,842	$40,326	$38,515	4.7
Retired Reemployed	8,285	60	82	8,427	8,523	-1.1

*Payroll figures as of June 30 are actual amounts paid during the prior fiscal year, increased by the assumed salary increase factor for the upcoming fiscal year.



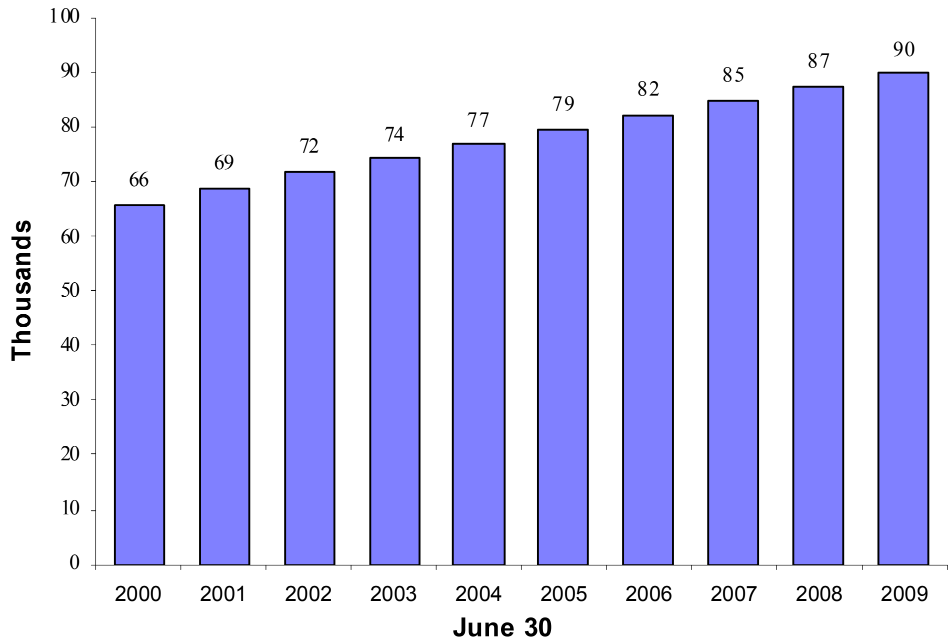
SUMMARY OF INACTIVE VESTED MEMBERS

Regular	Special Service		Total	Total	Percent
Membership	Group 1	Group 2	########	06/30/2008	Change
27,693	90	457	28,240	27,626	2.2%



SUMMARY OF RETIRED MEMBERS AND BENEFICIARIES

Regular Membership	Special Service Group 1	Special Service Group 2	Total ########	Total 06/30/2008	Percent Change
87,902	589	1,227	89,718	87,309	2.8%



AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR ACTIVE MEMBERS*

Males and Females - Regular Membership

Years of Service

	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	5,647	15,460	112	24,108	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	5,759	15,628
25-29	9,565	28,535	3,066	37,214	59	31,242	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	12,690	30,644
30-34	6,070	28,434	5,818	40,754	1,980	45,378	24	42,707	0	NA	0	NA	0	NA	0	NA	0	NA	13,892	36,033
35-39	5,659	26,436	3,837	39,234	4,890	48,209	1,385	51,727	32	44,995	0	NA	0	NA	0	NA	0	NA	15,803	38,535
40-44	5,389	24,241	4,143	33,048	3,680	43,484	3,494	53,728	1,264	54,963	34	43,810	0	NA	0	NA	0	NA	18,004	38,117
45-49	5,019	23,775	4,549	30,899	4,549	37,927	3,082	46,100	3,509	55,323	1,794	55,202	221	50,011	0	NA	0	NA	22,723	38,671
50-54	4,128	24,456	3,816	30,958	4,358	35,441	3,585	41,646	3,092	50,207	3,407	57,818	2,812	55,192	139	49,814	0	NA	25,337	40,936
55-59	4,041	20,859	3,028	30,149	3,213	36,147	3,259	40,100	3,377	46,163	2,699	53,261	3,844	60,722	1,473	60,110	48	48,809	24,982	41,884
60-64	3,891	14,048	2,351	25,480	1,871	33,274	1,844	38,695	2,018	44,170	1,532	49,312	1,307	54,287	1,172	63,392	339	59,261	16,325	35,418
65-69	2,579	8,958	1,459	14,405	756	23,484	476	30,694	396	38,444	240	40,433	242	42,140	140	54,187	116	62,518	6,404	19,745
70 & over	2,584	11,205	1,843	10,577	650	10,372	133	12,294	47	21,617	25	21,646	24	31,471	17	41,873	13	50,580	5,336	11,339
Totals	54,572	22,436	34,022	32,090	26,006	39,119	17,282	44,558	13,735	49,621	9,731	54,162	8,450	56,991	2,941	60,544	516	58,802	167,255	35,886

*Including retired/reemployed members

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR ACTIVE MEMBERS*

Males and Females - Special Service Group 1

	Years of Service																			
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	36	38,637	1	43,668	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	37	38,773
25-29	97	44,366	68	49,086	1	68,051	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	166	46,442
30-34	40	44,503	116	52,348	80	55,633	1	42,363	0	NA	0	NA	0	NA	0	NA	0	NA	237	52,090
35-39	30	43,290	64	51,622	110	57,738	54	56,196	0	NA	0	NA	0	NA	0	NA	0	NA	258	54,218
40-44	14	42,610	39	51,800	64	56,842	88	59,189	62	59,367	2	64,434	0	NA	0	NA	0	NA	269	56,776
45-49	4	48,104	12	61,679	40	58,039	49	59,038	73	61,168	40	64,299	1	89,267	0	NA	0	NA	219	60,609
50-54	5	38,883	8	60,284	12	55,741	21	58,944	52	58,493	53	61,004	54	63,502	0	NA	0	NA	205	59,938
55-59	28	21,306	6	49,961	4	47,112	17	55,021	17	53,716	22	62,267	24	60,948	16	66,427	0	NA	134	50,961
60-64	13	21,555	2	44,050	2	44,671	3	49,166	8	55,717	5	51,494	2	57,520	6	62,627	1	49,440	42	44,014
65-69	5	12,044	10	27,354	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	15	22,251
70 & over	4	22,356	4	10,690	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	8	16,523
Totals	276	39,069	330	50,619	313	56,792	233	57,936	212	59,182	122	61,978	81	62,916	22	65,391	1	49,440	1,590	53,745

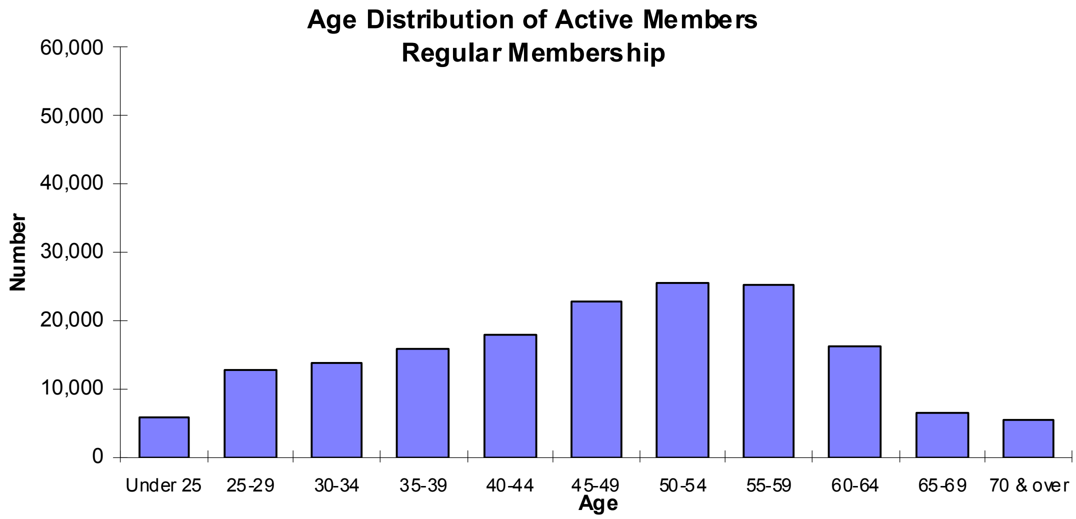
*Including retired/reemployed members

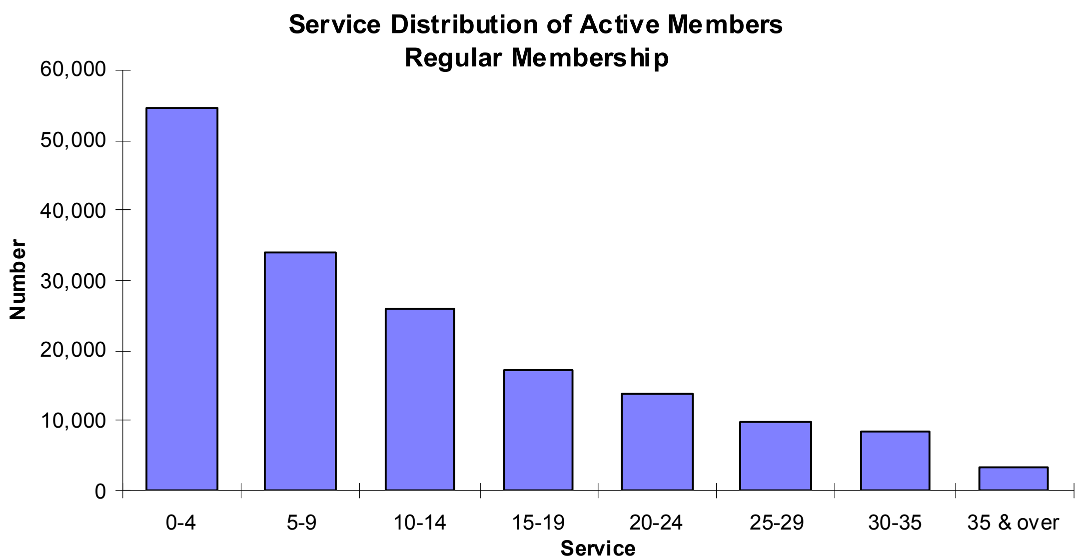
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR ACTIVE MEMBERS*

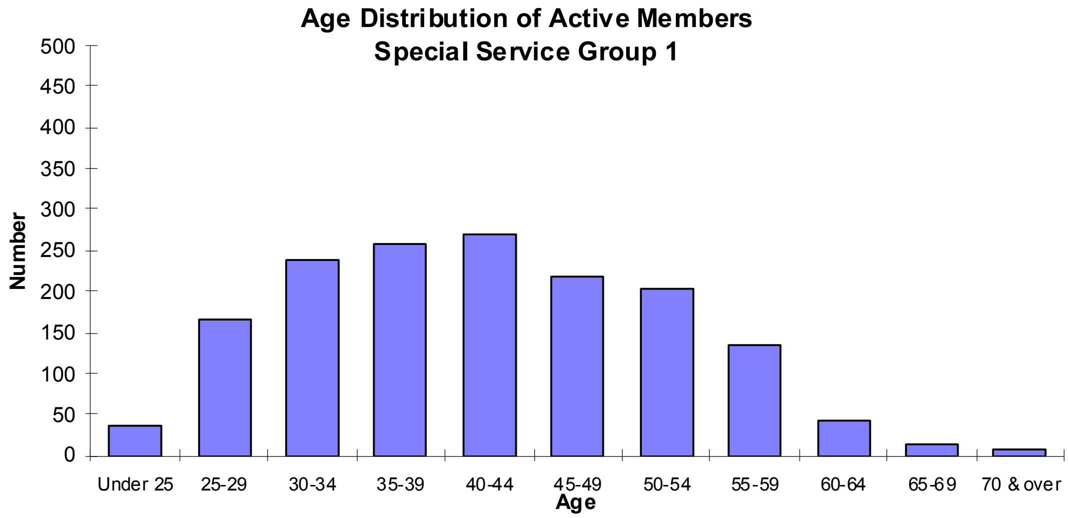
Males and Females - Special Service Group 2

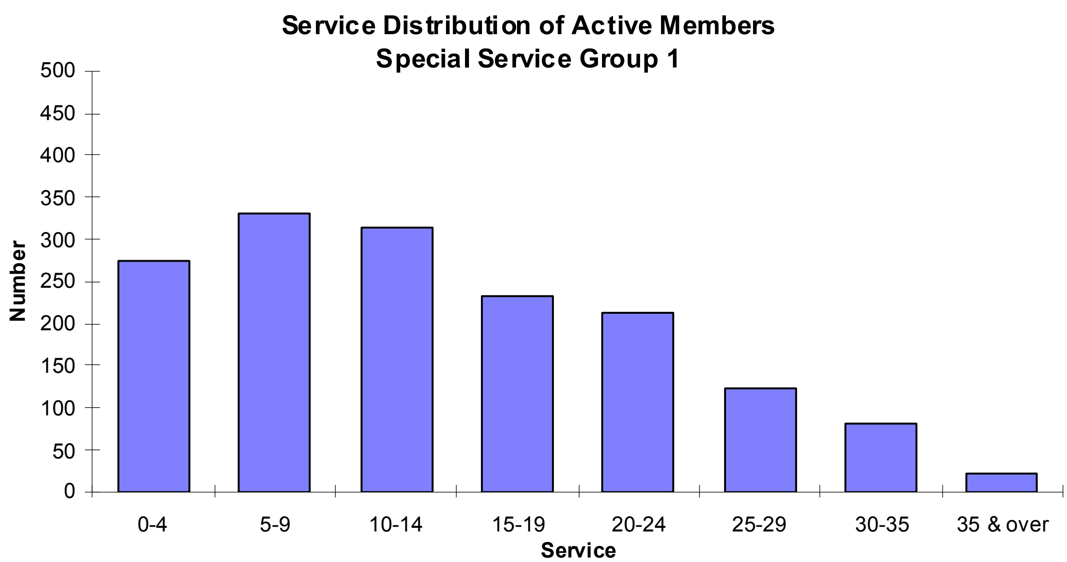
	Years of Service																			
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	378	25,373	5	39,335	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	383	25,556
25-29	630	30,769	222	38,366	3	29,948	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	855	32,739
30-34	418	29,707	329	38,714	172	46,736	3	56,137	0	NA	0	NA	0	NA	0	NA	0	NA	922	36,184
35-39	308	27,710	258	37,018	334	48,779	103	51,517	3	53,494	0	NA	0	NA	0	NA	0	NA	1,006	39,606
40-44	245	27,092	216	35,927	263	47,569	176	51,147	87	54,044	2	54,018	0	NA	0	NA	0	NA	989	41,173
45-49	193	28,414	168	35,226	230	47,792	139	48,769	153	54,354	115	55,749	15	52,957	0	NA	0	NA	1,013	44,121
50-54	123	28,698	136	34,773	173	42,329	124	46,906	122	53,013	162	59,029	85	57,063	3	50,864	0	NA	928	45,724
55-59	106	26,828	93	36,984	139	48,711	88	44,387	75	49,568	92	57,229	79	55,722	27	64,296	1	100,579	700	45,974
60-64	52	21,895	64	35,118	79	48,808	61	40,165	42	49,948	36	52,699	25	53,428	11	56,964	1	51,409	371	42,320
65-69	20	9,806	18	32,359	14	49,061	9	30,153	4	38,420	5	57,722	3	41,506	1	33,168	0	NA	74	31,578
70 & over	17	14,406	10	14,073	2	2,383	2	8,621	0	NA	1	51,809	0	NA	0	NA	0	NA	32	14,357
Totals	2,490	28,114	1,519	36,747	1,409	47,242	705	47,825	486	52,706	413	57,106	207	55,589	42	60,675	2	75,994	7,273	39,806

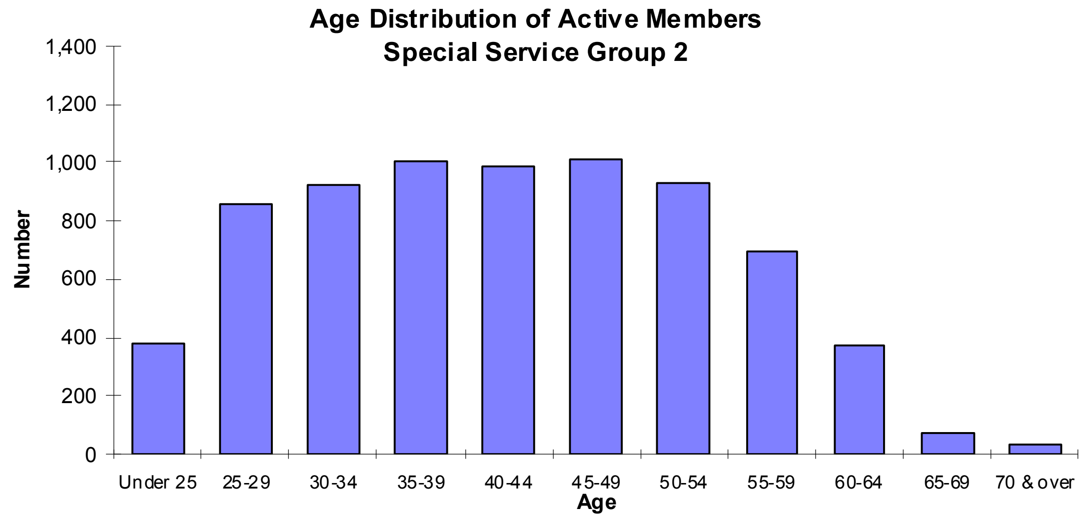
*Including retired/reemployed members

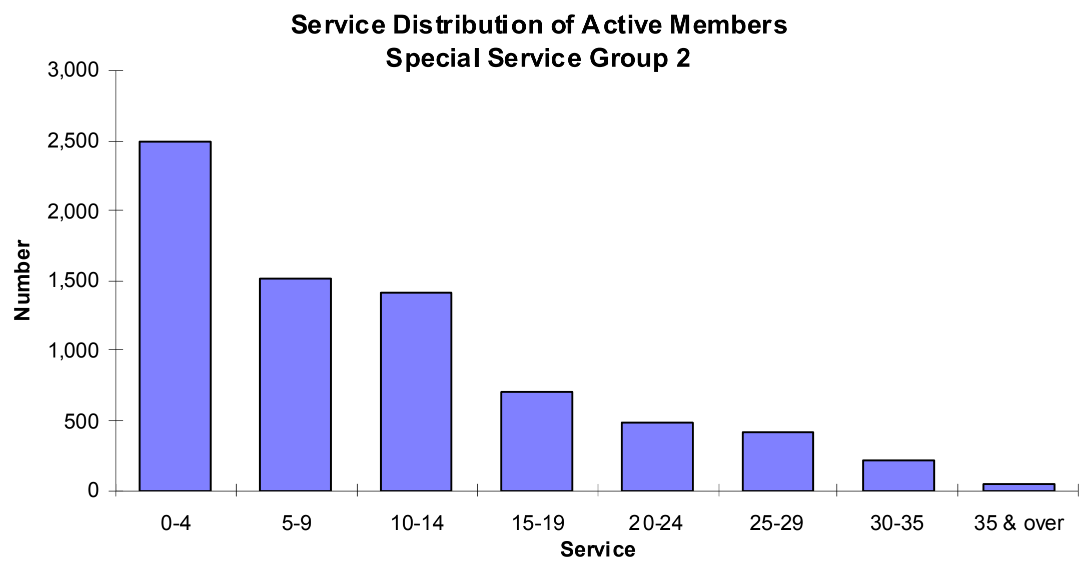

Age Distribution of Active Members
Regular Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Regular Membership
60,000
50,000
40,000
30,000
20,000
10,000
0
Number
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Service Group 1
500
450
400
350
300
250
200
150
100
50
0
Number
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Service Group 1
500
450
400
350
300
250
200
150
100
50
0
Number
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service


Age Distribution of Active Members
Special Service Group 2
Number
1,400
1,200
1,000
800
600
400
200
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Active Members
Special Service Group 2
Number
3,000
2,500
2,000
1,500
1,000
500
0
0-4
5-9
10-14
15-19
20-24
25-29
30-35
35 & over
Service

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR INACTIVE VESTED MEMBERS

Males and Females - Regular Membership

	Years of Service																			
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	38	11,033	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	38	11,033
25-29	0	NA	481	20,569	3	7,576	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	484	20,558
30-34	0	NA	1,330	25,970	65	12,059	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1,395	26,082
35-39	0	NA	1,610	24,776	333	15,914	21	28,348	1	36,911	0	NA	0	NA	0	NA	0	NA	1,965	26,120
40-44	0	NA	1,841	21,505	492	16,742	109	38,653	12	48,548	0	NA	0	NA	0	NA	0	NA	2,454	24,001
45-49	0	NA	2,426	18,903	843	15,920	342	31,741	130	39,235	25	33,049	0	NA	0	NA	0	NA	3,766	22,111
50-54	0	NA	2,697	17,944	1,298	16,205	629	28,455	333	35,316	126	43,267	41	42,042	1	39,813	0	NA	5,125	22,425
55-59	2,329	10,025	2,490	17,040	1,088	18,117	535	24,516	248	31,497	100	38,095	22	45,199	2	32,304	0	NA	6,814	16,807
60-64	1,663	8,723	1,246	14,793	455	17,743	201	21,359	91	25,093	28	33,943	8	39,836	2	51,501	0	NA	3,694	13,187
65-69	876	6,815	451	9,713	94	12,736	38	15,438	17	17,965	7	22,581	6	27,129	3	22,718	0	NA	1,492	8,452
70 & over	315	5,368	119	5,728	22	6,978	7	5,704	2	8,478	0	NA	0	NA	1	15,183	0	NA	466	5,498
Totals	5,183	8,782	14,729	19,317	4,693	16,606	1,882	27,417	834	33,450	286	39,147	77	41,553	9	32,307	0	NA	27,693	19,268

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR INACTIVE VESTED MEMBERS

Males and Females - Special Service Group 1

Years of Service

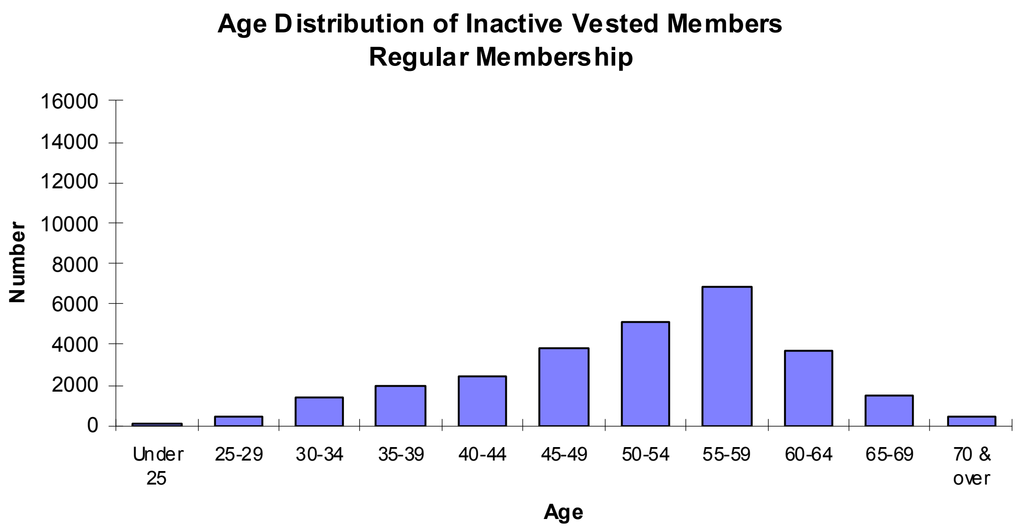
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
25-29	0	NA	3	42,164	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	3	42,164
30-34	0	NA	12	38,214	1	24,936	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	13	37,811
35-39	0	NA	9	42,652	10	36,526	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	19	42,889
40-44	0	NA	6	40,480	5	36,313	4	44,750	1	64,540	0	NA	0	NA	0	NA	0	NA	16	44,458
45-49	0	NA	4	33,027	6	45,506	5	45,920	1	50,384	0	NA	1	55,197	0	NA	0	NA	17	42,407
50-54	0	NA	4	23,465	4	37,744	3	34,583	3	38,575	0	NA	0	NA	0	NA	0	NA	14	31,902
55-59	0	NA	3	20,155	0	NA	3	28,207	0	NA	0	NA	0	NA	0	NA	0	NA	6	24,181
60-64	1	1,138	0	NA	1	4,559	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	2	2,590
65-69	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	1	1,138	41	36,542	27	37,050	15	39,798	5	46,130	0	NA	1	55,197	0	NA	0	NA	90	38,468

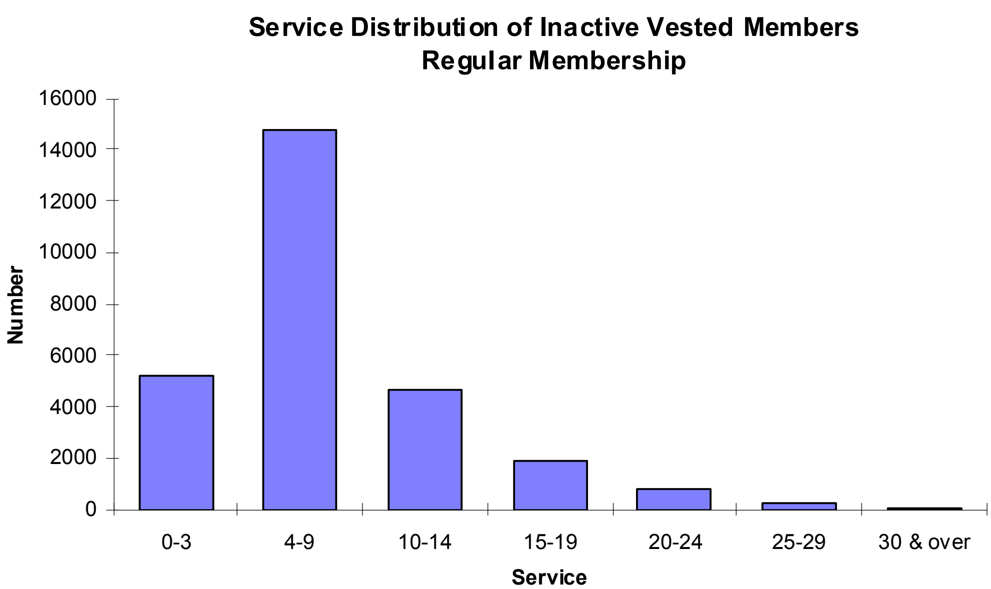
AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 2009 FOR INACTIVE VESTED MEMBERS

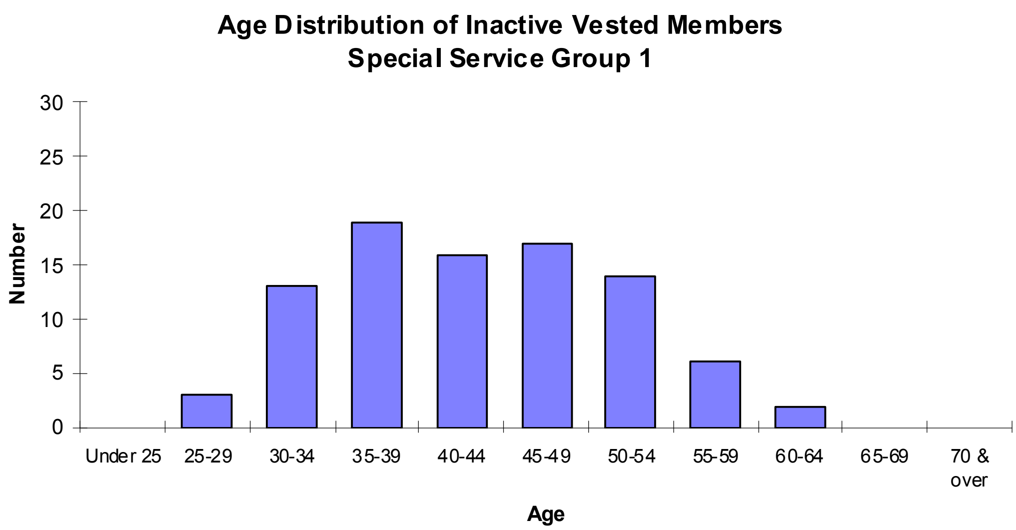
Males and Females - Special Service Group 2

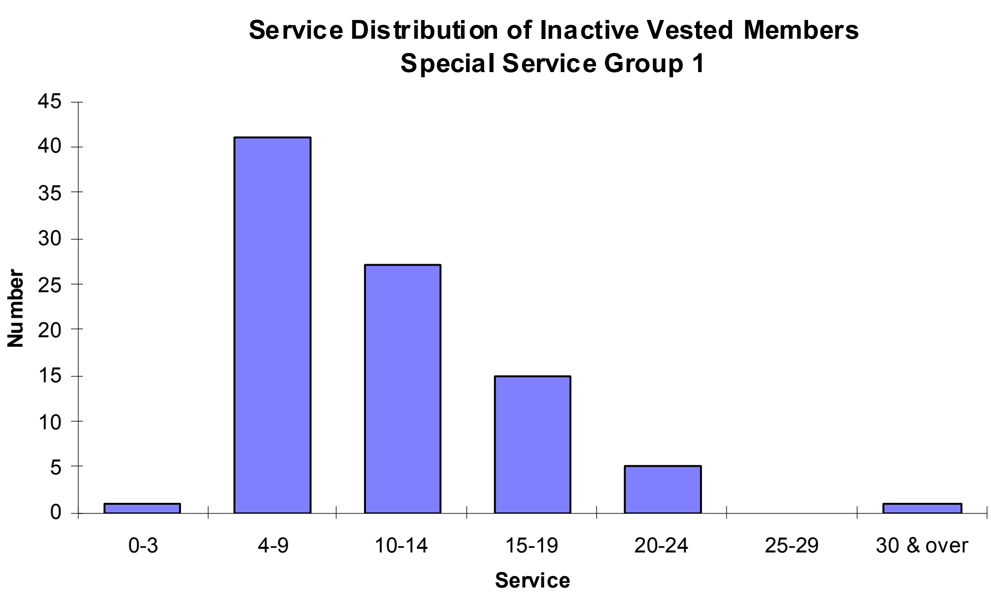
Years of Service

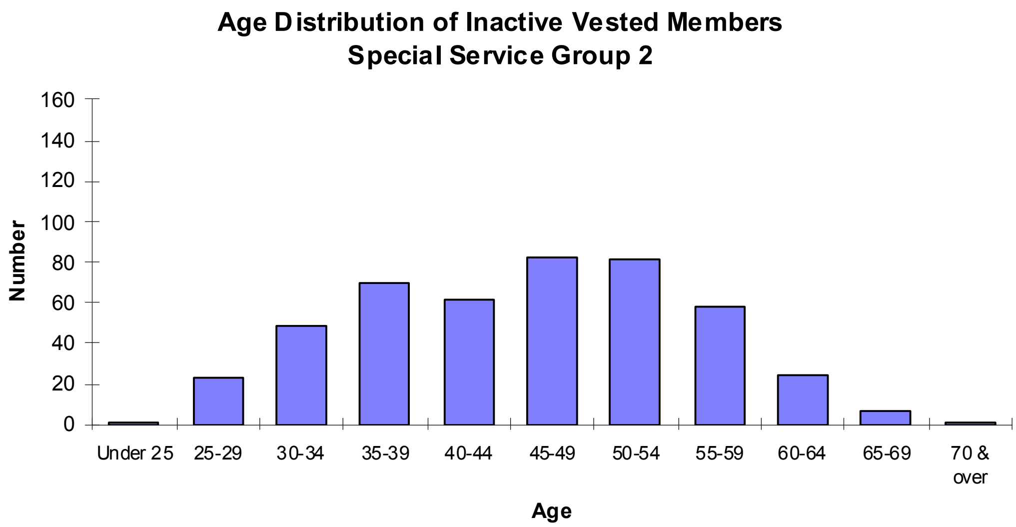
	0 to 3		4 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3	No.	Avg. Hi-3
Under 25	0	NA	1	36,477	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	36,477
25-29	0	NA	23	21,612	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	23	21,612
30-34	0	NA	46	23,135	3	17,430	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	49	23,452
35-39	0	NA	46	21,478	18	19,100	6	41,623	0	NA	0	NA	0	NA	0	NA	0	NA	70	24,065
40-44	0	NA	34	14,675	21	19,641	5	28,789	1	45,583	0	NA	0	NA	0	NA	0	NA	61	18,844
45-49	0	NA	40	18,735	27	25,018	8	34,925	6	36,973	1	51,693	0	NA	0	NA	0	NA	82	25,137
50-54	0	NA	36	21,100	19	15,867	5	31,825	13	40,366	6	36,307	2	54,247	0	NA	0	NA	81	26,468
55-59	14	11,039	19	9,644	10	19,913	9	31,628	2	34,063	1	51,007	3	43,131	0	NA	0	NA	58	18,610
60-64	12	14,279	7	16,714	5	21,848	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	24	17,809
65-69	2	2,754	2	1,389	2	13,091	1	604	0	NA	0	NA	0	NA	0	NA	0	NA	7	1,505
70 & over	1	5,536	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	1	5,536
Totals	29	11,619	254	19,278	105	20,191	34	32,867	22	39,104	8	40,068	5	47,577	0	NA	0	NA	457	22,417

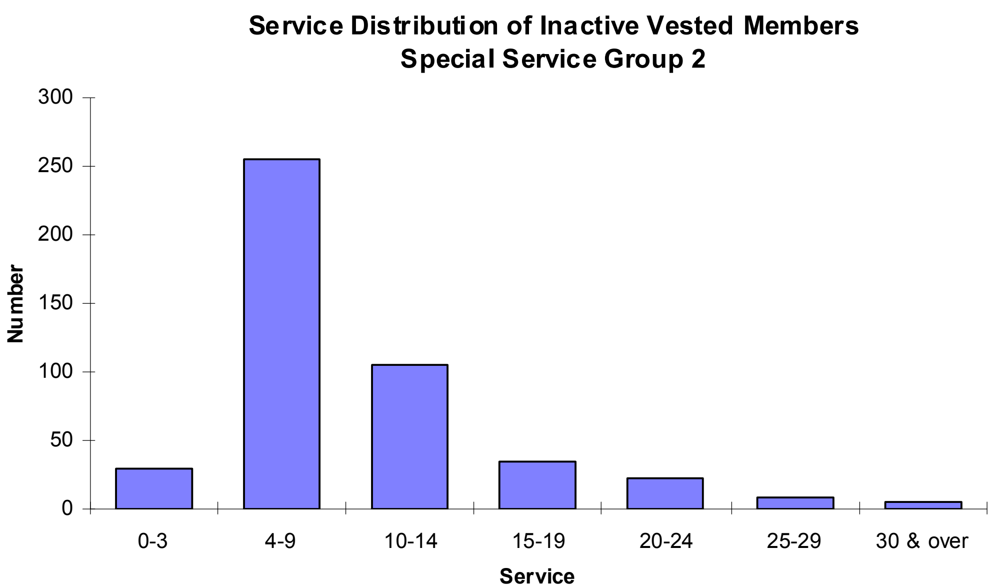

Age Distribution of Inactive Vested Members
Regular Membership
Number
16000
14000
12000
10000
8000
6000
4000
2000
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Regular Membership
Number
16000
14000
12000
10000
8000
6000
4000
2000
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Service Group 1
Number
30
25
20
15
10
5
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Service Group 1
Number
45
40
35
30
25
20
15
10
5
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service


Age Distribution of Inactive Vested Members
Special Service Group 2
Number
160
140
120
100
80
60
40
20
0
Under 25
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70 & over
Age


Service Distribution of Inactive Vested Members
Special Service Group 2
Number
300
250
200
150
100
50
0
0-3
4-9
10-14
15-19
20-24
25-29
30 & over
Service

ANALYSIS OF RETIREES AND BENEFICIARIES

Males and Females - Regular Membership

	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	9	4	4	4	29	1	2	10	63	$ 6,417
40 to 44	0	17	9	2	3	19	2	3	7	62	7,603
45 to 49	0	50	11	14	14	26	7	14	7	143	6,960
50 to 54	0	124	38	37	32	84	18	35	4	372	9,740
55 to 59	0	1,247	1,111	884	343	184	519	1,206	19	5,513	19,244
60 to 64	0	3,213	3,026	2,213	985	316	1,450	3,109	33	14,345	18,863
65 to 69	0	4,356	3,468	2,551	1,796	421	1,815	2,342	47	16,796	15,326
70 to 74	0	4,627	3,413	2,212	2,523	567	2,076	759	51	16,228	11,902
75 to 79	0	4,178	2,982	1,486	2,256	731	1,630	132	30	13,425	8,711
80 to 84	0	3,436	2,593	1,004	1,413	734	1,108	6	21	10,315	6,398
85 to 89	0	2,585	1,460	639	680	509	828	2	10	6,713	5,175
90 to 94	3	1,469	370	249	178	188	517	0	10	2,984	4,333
95 to 99	0	476	60	73	26	26	143	0	9	813	3,657
100 & up	2	83	3	18	1	4	17	0	2	130	3,526
Counts	5	25,870	18,548	11,386	10,254	3,838	10,131	7,610	260	87,902	$12,136
% of Total	0.0%	29.4%	21.1%	13.0%	11.7%	4.4%	11.5%	8.7%	0.3%	100.0%	

ANALYSIS OF RETIREES AND BENEFICIARIES

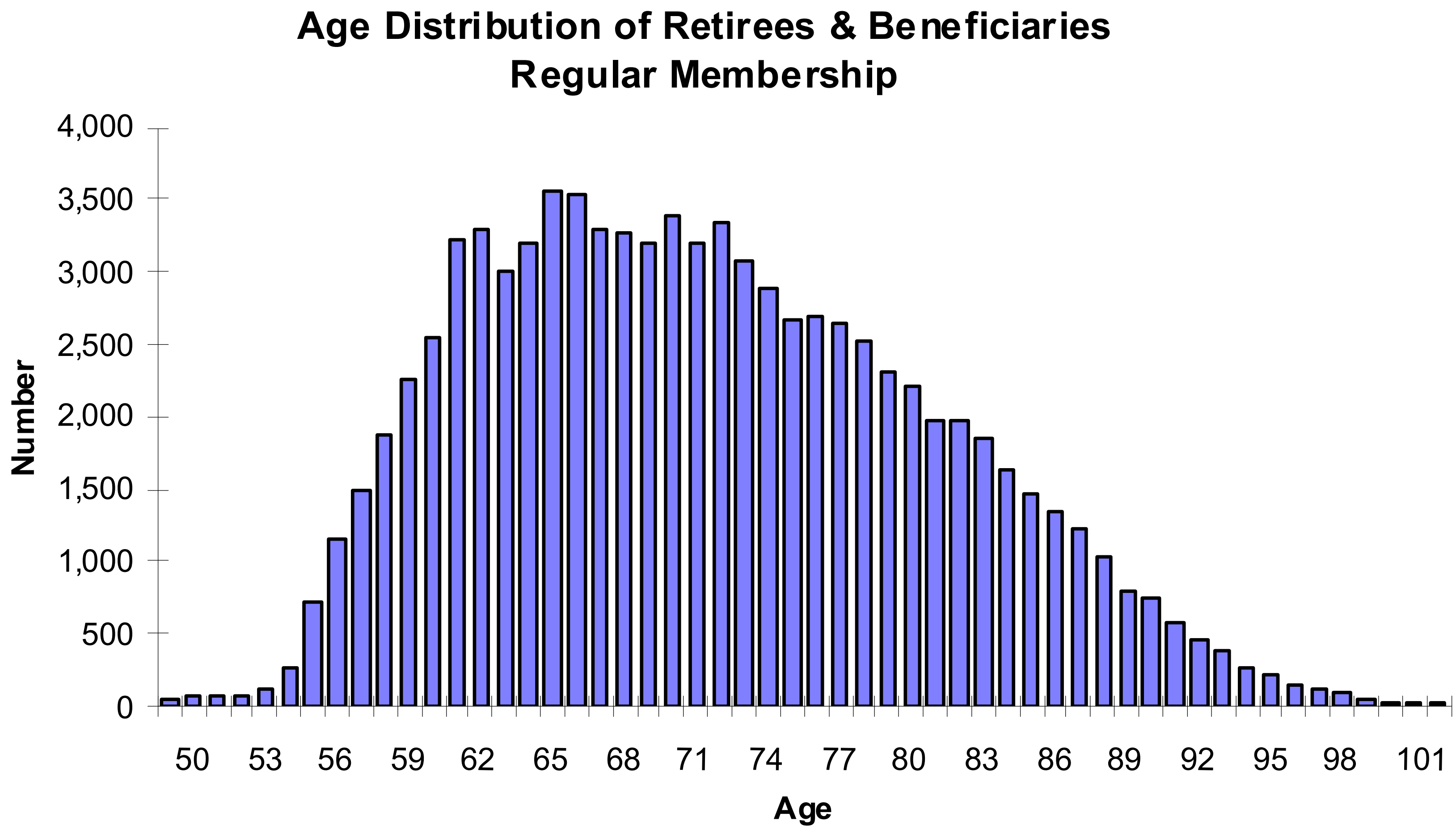
Males and Females - Special Service Group 1

	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	0	0	0	0	1	0	0	0	1	6,159
40 to 44	0	2	0	0	0	1	0	0	0	3	15,199
45 to 49	0	1	0	0	0	1	0	0	0	2	30,657
50 to 54	0	9	8	2	12	2	2	13	0	48	31,261
55 to 59	0	28	14	11	28	1	6	53	1	142	31,086
60 to 64	0	31	13	7	25	3	9	43	0	131	27,708
65 to 69	0	27	12	9	27	7	4	17	0	103	24,826
70 to 74	0	16	6	5	30	3	4	11	0	75	18,056
75 to 79	0	15	8	3	13	9	3	0	0	51	13,270
80 to 84	0	8	3	0	5	7	1	0	0	24	9,002
85 to 89	0	1	2	0	2	3	0	0	0	8	7,268
90 to 94	0	0	1	0	0	0	0	0	0	1	51,412
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	138	67	37	142	38	29	137	1	589	$24,666
% of Total	0.0%	23.4%	11.4%	6.3%	24.1%	6.5%	4.9%	23.3%	0.2%	100.0%	

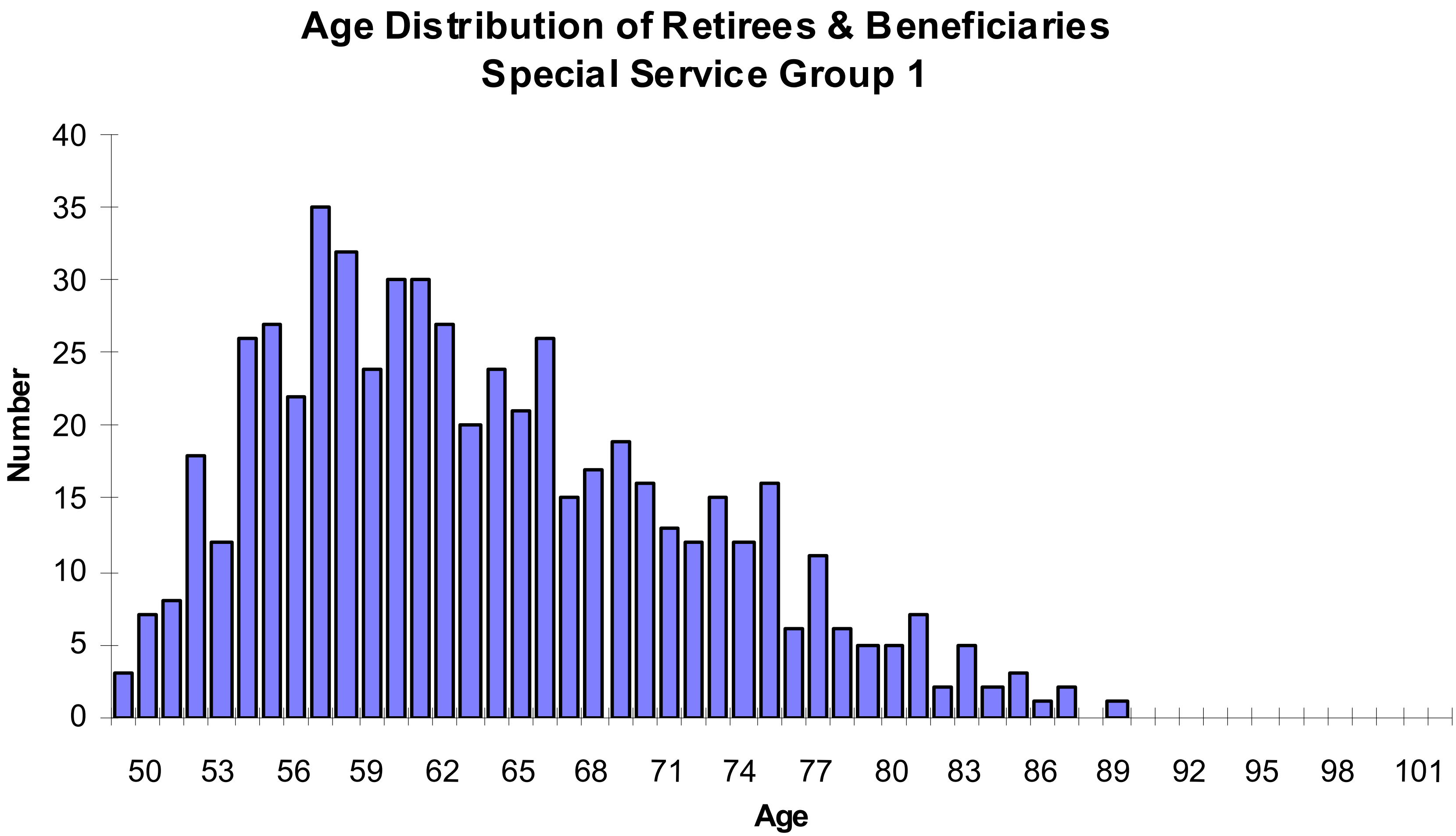
ANALYSIS OF RETIREES AND BENEFICIARIES

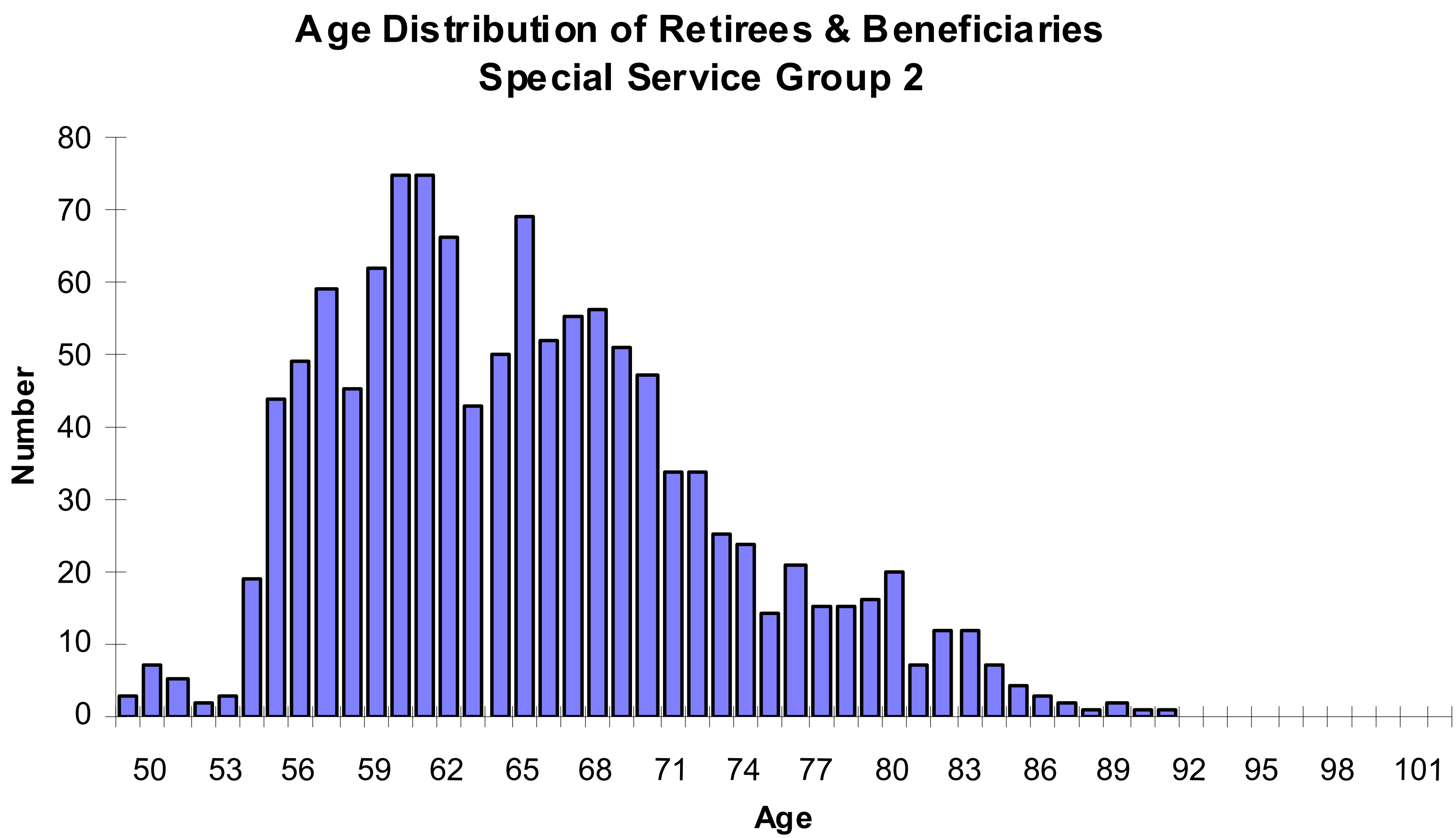
Males and Females - Special Service Group 2

	Number of Members and Beneficiaries										Average
						Contingent			Period		Annual
Age	Chapt 97	Option 1	Option 2	Option 3	Option 4	Beneficiary	Option 5	Option 6	Certain	Total	Benefit
Under 40	0	0	0	0	1	0	1	0	0	2	$31,082
40 to 44	0	1	0	1	2	0	0	1	0	5	14,070
45 to 49	0	4	2	3	1	1	0	2	0	13	17,901
50 to 54	0	4	0	4	4	2	1	5	0	20	16,650
55 to 59	0	51	40	14	31	10	7	63	0	216	26,699
60 to 64	0	77	42	29	63	4	21	84	1	321	22,329
65 to 69	0	60	39	29	64	15	15	60	0	282	18,200
70 to 74	0	46	24	14	60	13	15	19	0	191	14,070
75 to 79	0	26	3	1	42	10	7	0	0	89	11,935
80 to 84	0	26	5	1	19	8	8	0	0	67	8,497
85 to 89	0	4	2	0	2	6	3	0	0	17	6,827
90 to 94	0	2	0	0	1	1	0	0	0	4	8,051
95 to 99	0	0	0	0	0	0	0	0	0	0	NA
100 & up	0	0	0	0	0	0	0	0	0	0	NA
Counts	0	301	157	96	290	70	78	234	1	1,227	$18,934
% of Total	0.0%	24.5%	12.8%	7.8%	23.6%	5.7%	6.4%	19.1%	0.1%	100.0%	



Age Distribution of Retirees & Beneficiaries
Regular Membership
Number
Age
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101


Age Distribution of Retirees & Beneficiaries
Special Service Group 1
Number
0
5
10
15
20
25
30
35
40
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101
Age


Age Distribution of Retirees & Beneficiaries
Special Service Group 2
80
70
60
50
40
30
20
10
0
Number
50
53
56
59
62
65
68
71
74
77
80
83
86
89
92
95
98
101
Age

SUMMARY OF DATA FILE RECONCILIATION

The following table reconciles the data we received from IPERS to the final membership counts used in the valuation.

Records on the in-pay data file	89,852
Removed deaths prior to 7/1/09	(134)
Records used in the valuation	89,718
Records on the not-in-pay data file	258,293
Records removed because the member has received all benefits	(15,283)
Records removed because benefit has been forfeited	(794)
Records used in the valuation	242,216

These records are allocated as follows:

Active members	167,691
Retired, re-employed members	8,427
Vested inactive members	28,240
Nonvested inactive members	37,858
Total	242,216

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APPENDIX B

SUMMARY OF PLAN PROVISIONS

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APPENDIX B

SUMMARY OF PLAN PROVISIONS

Chapter 97B of the Iowa code sets out the IPERS provisions, which are briefly summarized as follows:

Participation:	In general, the System covers people in non-federal public employment within the State of Iowa. Membership is mandatory if a person is in covered employment. Exceptions to this are set out in the law. A notable exception are those covered by another public system in Iowa (such as judges, state patrol, and policemen and firemen in cities having civil service), employees of the Regents' institutions, and employees of the community colleges who elect alternative coverage under TIAA.
Average Salary:	It is the average of the member's highest three years of covered wages.
Service Credit:	A member will receive membership credit for service rendered after July 4, 1953 (special rules apply to service before this date). Service is counted to the complete quarter of a calendar year. A member will not receive credit for more than four quarters of service in a calendar year regardless of the number of employers reporting covered wages for that member. A calendar year is the 12-month period beginning January 1 and ending December 31. Members may purchase service under specified conditions. To make such a purchase, the member must pay the actuarial cost of such service.

REGULAR MEMBERS:

Age and Service Requirements for Benefits:

Normal Retirement	Earliest of the first day of the month of the member's 65th birthday, age 62 with 20 years of service or Rule of 88 (age plus service equals/exceeds 88), with a minimum of age 55.
Early Retirement	First day of any month starting with the month of the member's 55th birthday but preceding the normal retirement date.
Inactive Vested Benefit	Four years of service. Prior to July 1, 2005 inactive members could become eligible for a vested benefit merely by reaching age 55.
Pre-retirement Death Benefit	Upon death of a member before benefits have started.
Disability Benefit	Upon meeting requirements to be vested, if the active or inactive member begins receiving federal Social Security disability or Railroad Retirement disability benefits.

Retirement Benefits:

Normal Retirement	An annual annuity equal to 2% of Average Salary (AS) for each year of service up to 30 years plus 1% of AS for each of the next 5 years of service. Maximum years of service recognized for benefit accrual purposes is 35 with a resulting maximum benefit of 65% of AS.
Early Retirement	An annuity, determined in the same manner as for normal retirement. However, a reduction of .25% per month is applied for each month the benefit commences prior to normal retirement age (based on service at early retirement).
Pre-retirement Death Benefits	Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.
Disability Benefits	An annuity, payable immediately, equal to the Normal Retirement Benefit without an early retirement adjustment.

Termination Benefits:

Less than four years of Service (Nonvested)	A refund of all of the member's accumulated contributions.
Four or more years of Service (Vested)	At the member's election either: (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 30) of the employer's contributions with interest, or (2) a deferred benefit determined in the same manner as for normal retirement. Payments can begin at normal or early retirement.

Form of Annuity:	The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).
Optional Forms of Payment:	*Option 1:* The member specifies a dollar amount, in $1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member. The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%. *Option 3:* After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Actuarial Equivalent Lump Sum Payment: If a vested member is entitled to receive a benefit and it is less than $50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

Post-retirement Benefit Increases: Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

Favorable Experience Dividend (FED): For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:
(December's Monthly benefit) X (12 months) X (Rate) X (Full calendar years retired) = FED

Source of Funds:

Regular Membership:

Contribution Rates			
Time Period	**Member**	**Employer**	**Total**
Prior to 7/1/07	3.70%	5.75%	9.45%
7/1/07 – 6/30/08	3.90%	6.05%	9.95%
7/1/08 – 6/30/09	4.10%	6.35%	10.45%
7/1/09 – 6/30/10	4.30%	6.65%	10.95%
7/1/10 – 6/30/11	4.50%	6.95%	11.45%
7/1/11 and later	Actuarially Determined*		

*Change in contribution rate cannot exceed 0.50% per year.

SPECIAL SERVICE GROUPS 1 AND 2:

Age and Service Requirements for Benefits:

Normal Retirement

Generally age 55. However, a member of the Sheriffs and Deputy Sheriffs (Group 1) may retire at age 50 with 22 years of service (phased in from July 1, 2004 through July 1, 2008). The age at which sheriffs and deputy sheriffs with 22 or more years of eligible service first qualify for a retirement benefit is reduced over a five-year period as follows:

54 effective July 1, 2004 [FY 2005]
53 effective July 1, 2005 [FY 2006]
52 effective July 1, 2006 [FY 2007]
51 effective July 1, 2007 [FY 2008]
50 effective July 1, 2008 [FY 2009]

Inactive Vested Benefit

Four years of service. Prior to July 1, 2005 inactive members could become eligible for vested benefits merely by reaching age 55.

Pre-retirement Death Benefit

Upon death of a member before benefits have started.

Disability Benefit	Upon meeting requirements to be vested, (i) if the active or inactive member begins receiving federal Social Security or Railroad Retirement disability benefits, or (ii) upon being determined by IPERS to be disabled under the provisions of Iowa Code section 97B.50A. The disability benefits under Iowa Code section 97B.50A must be applied for through IPERS within one (1) year after termination of employment. Benefits under Iowa Code section 97B.50A may be paid for in-service disability or ordinary disability.

Retirement Benefits:

Normal Retirement	60% of average salary after completion of 22 years of service, plus an additional 1.5% of average salary for years of service greater than 22 but not more than 30. Maximum formula is 72% of average salary.
Pre-retirement Death Benefits	Beneficiaries of members may receive a lump sum determined by a formula that includes how much the member contributed to IPERS, years of service, highest year's salary, and other factors. Beneficiaries may have the option of receiving a monthly benefit based on the present value of the member's accrued benefit at death.
Disability Benefits	An annuity, payable immediately, equal to the Normal Retirement Benefit, without an early retirement adjustment. The benefit is the greater of the Normal Retirement Benefit and either 50% (for ordinary disability) or 60% (for in-service disability) of Average Salary.

Termination Benefits:

Less than four years of Service (Non-vested)	A refund of all of the member's accumulated contributions.
Four or more years of Service (Vested)	At the member's election either: (1) a refund of all of the member's accumulated contributions plus a portion (years of service divided by 22) of the employer's contributions with interest, or (2) a deferred benefit determined in the same manner as for normal retirement. Payments begin at normal retirement.

Form of Annuity:	The base form, or normal form, is a life annuity with a guaranteed return of employee contributions (Option 2).
Optional Forms of Payment:	*Option 1:* The member specifies a dollar amount, in $1,000 increments, that the member wishes to have paid to a designated beneficiary following the death of the member.

The death benefit will be in the form of a single payment and cannot exceed the amount of a member's own accumulated contributions to IPERS, and it cannot lower the member's benefit as calculated under Option 2 by more than 50%.

Option 3: After the member's death, all benefits cease.

Option 4: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. The member specifies what benefit the contingent annuitant will receive after the death of the member. The monthly benefit can be the same as the member's monthly benefit or three-fourths, one-half, or one-fourth of the amount. These choices may be restricted if the contingent annuitant is not the member's spouse and is more than ten years younger than the member.

Option 5: If the member dies before ten full years (120 months of payments) have ended, the member's beneficiary will receive a monthly benefit for the remainder of the ten years. Members who have attained age 90 as of the first month of entitlement are not allowed to select this option.

Option 6: The member receives a reduced monthly benefit so that a lifetime monthly benefit may be provided after the member's death to the person named by the member as the contingent annuitant. In addition, the monthly amounts are also reduced to pay for a pop-up feature. The pop-up feature provides that if the contingent annuitant dies before the member, the member's benefit will pop back up to what it would have been under IPERS Option 2, and death benefits may be payable to the member's designated beneficiary if certain conditions are met.

Level Income Payment Option: A Level Income payment alternative is authorized for special service members. This alternative applies to all IPERS retirement options listed above except Option 6. The Level Income payment alternative permits a special service member to receive a relatively level income both before and after age 62 when benefits from IPERS and Social Security are combined. Higher IPERS benefits are paid prior to age 62. When the member reaches age 62, the member's IPERS benefit is permanently reduced. This amount is determined when the member retires and is not recomputed based on the actual Social Security benefit.

Actuarial Equivalent Lump Sum Payment: If a vested member is entitled to receive a benefit and it is less than $50 per month under Option 2, the member shall receive a retirement benefit in an actuarial equivalent lump sum payment. The lump sum will include the member's and employer's accumulated contributions.

Post-retirement Benefit Increases:	Annual dividends are paid to those retired prior to July 1, 1990. Effective with the November 2000 dividend payment, the dividend is adjusted by the least of the following percentages: (1) the change in the CPI, (2) percentage certified to by the actuary as affordable by the System, and (3) 3%.

Favorable Experience Dividend (FED):

For members who retired after June 30, 1990, a favorable experience dividend (FED) reserve account has been established under Iowa Code §97B.49F(2). The main purpose of this account is to help offset the negative effects of postretirement inflation. All members and beneficiaries who receive a monthly allowance qualify for favorable experience dividend payments. Each November, IPERS determines if a FED payment should be paid the following January subject to the following conditions:

- The member must be retired one year.
- The FED rate cannot exceed 3%.
- The FED payment will be issued in a lump sum in January.
- The FED payment is not guaranteed.

The formula is as follows:
(December's Monthly benefit) x (12 months) x (Rate) x (Full calendar years retired) = FED

Source of Funds:

Special Service Group 1: Actuarially determined contribution rate. Members contribute 50% and employers contribute 50%.

Special Service Group 2: Actuarially determined contribution rate. Members contribute 40% and employers contribute 60%.

For FY2012 and later, the contribution rate set by IPERS may not change by more than 0.50% per year.

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

Sound financing of any retirement system requires that benefits accruing to its members shall be paid for during their active working lifetime so that when a member (or his beneficiary) becomes entitled to a benefit, the monies necessary to provide such benefit shall be on hand. In this way, the cost of benefits for present active members will not become a liability to future taxpayers.

The principal purpose of an actuarial valuation is to calculate, on the basis of certain assumptions, the present value of benefits that are payable in the future from the system to present members (and their beneficiaries) and the present value of future contributions to be made by the members and their employers. Having calculated such present values, the level of annual contribution to the system required to fund (or pay for) the benefits, in accordance with the above stated principle of sound financing, may be determined.

VALUATION ASSUMPTIONS

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and census (member) information of the Retirement System, using the actuarial cost method.

The principal areas of risk which require experience assumptions about future activities of the Retirement System are:

- long-term rates of investment return to be generated by the assets of the system
- patterns of pay increases to members
- rates of mortality among members, retirants and beneficiaries
- rates of withdrawal of active members
- rates of disability among active members
- the age patterns of actual retirements

In making a valuation, the monetary effect of each assumption is calculated for as long as a present member survives -- a period of time which can be as long as a century.

Actual experience of the Retirement System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experiences. The result is a continual series of adjustments to the computed contribution rate, or alternatively to the amortization period for the unfunded actuarial liability.

From time to time, one or more of the assumptions are modified to reflect experience trends (but not random or temporary year to year fluctuations). A complete review of the actuarial assumptions was completed in 2006, based on experience from 2001-2005. The Investment Board has adopted and approved the use of the following assumptions and methods.

ECONOMIC ASSUMPTIONS:

Rate of Inflation (effective June 30, 2006)

3.25% per annum

Rate of Crediting Interest on Contribution Balances (effective June 30, 2006)

4.00% per annum, compounded annually

Rate of Investment Return (effective June 30, 1996)

7.50% per annum, compounded annually, net of expenses.

Wage Growth Assumption (effective June 30, 1999)*

4.00% per annum based on 3.25% inflation assumption and 0.75% real wage inflation.

*Total of 4.0% did not change but the components changed June 30, 2006

Payroll Increase Assumption (effective June 30, 1999)

4.00% per year

DEMOGRAPHIC ASSUMPTIONS:

Rates of Mortality (effective June 30, 2002)

		Regular Membership	Special Service Groups
Males:	Retirees:	RP-2000 Healthy Annuitant Table, Set Forward One Year	RP-2000 Healthy Annuitant Table Set Forward Three Years
	Actives:	RP-2000 Employee Table, Set Forward One Year	RP-2000 Employee Table Set Forward Three Years
Females:	Retirees:	RP-2000 Healthy Annuitant Table, Set Back Two Years	RP-2000 Healthy Annuitant Table No Age Adjustment
	Actives:	RP-2000 Employee Table, Set Back Two Years	RP-2000 Employee Table No Age Adjustment
	The RP-2000 Tables are used with generational mortality		
Beneficiaries:	Same as members		Same as members
Disabled Members:	Annual rates are the greater of 3% or 2.5% plus the corresponding non-disabled rate (based on GAM 94 for males, 95% of GAM 94 for females)		Same as healthy members set forward 6 years

For Special Service Groups active members, 5% of deaths are assumed to be service related.

Retirement Rates (effective June 30, 2002)

Upon meeting the requirements for early retirement, the following rates apply to regular members:

Age	Assumed Retirement Rate
55-59	5%
60	10
61	15
62	25
63-64	20

Upon reaching the requirements for normal retirement, the following rates apply:

	Assumed Retirement Rates		
Age	1st Year Eligible	After 1st Year	Special Service Groups
55	20%	10%	15%
56	20%	10%	10%
57-59	20%	20%	10%
60	25%	25%	10%
61	35%	30%	20%
62	50%	40%	35%
63	35%	30%	20%
64	35%	35%	35%
65	30%	45%	100%
66	20%	20%	100%
67-68	15%	15%	100%
69	15%	35%	100%
70+	100%	100%	100%

Special Service Group 1 ages 50 to 55 with 22 years of service: 30%

Terminated vested members are assumed to retire at age 62 (55 for Special Service Groups).
For regular membership, retired re-employed members are assumed to retire at a rate of 25% per year until age 80 when all are assumed to retire.

Rates of Disablement (effective June 30, 1999 for Regular Membership),
(effective June 30, 2006 for Special Service Groups)

	Annual Rate Per 1,000 Members		
Age	**Regular Membership**		**Special Service Groups**
	Males	Females	
27	0.2	0.2	1.1
32	0.2	0.2	1.2
37	0.4	0.3	1.8
42	0.7	0.5	3.5
47	1.4	0.9	6.5
52	3.3	2.2	14.6
57	6.3	3.9	26.0
62	9.0	6.2	48.7

Rates of Termination of Employment (effective June 30, 2002)

Regular Membership

	Annual Rate of Withdrawals Per 1,000 Members					
Males:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	165.0	165.0	110.0	66.0
27	231.0	145.0	121.0	99.0	88.0	66.0
32	198.0	145.0	110.0	74.8	55.0	38.5
37	195.8	140.0	110.0	74.8	49.5	33.0
42	195.8	140.0	110.0	74.8	49.5	25.3
47	195.8	130.0	99.0	74.8	49.5	19.8
52	176.0	110.0	77.0	74.8	49.5	19.8
55+	165.0	110.0	55.0	74.8	49.5	19.8
Females:						
Age	**Years 0-1**	**Year 2**	**Year 3**	**Years 4-6**	**Years 7-8**	**Years 9+**
22	330.0	250.0	220.0	220.0	165.0	55.0
27	275.0	170.0	140.0	110.0	99.0	55.0
32	247.5	170.0	140.0	104.5	71.5	49.5
37	198.0	150.0	110.0	104.5	66.0	36.3
42	198.0	150.0	110.0	88.0	60.5	30.8
47	198.0	130.0	110.0	82.5	49.5	25.3
52	198.0	130.0	110.0	82.5	49.5	25.3
55+	198.0	130.0	110.0	82.5	49.5	25.3

Special Service Groups

Age	Annual Rate of Withdrawals Per 1,000 Members
22	90
27	70
32	35
37	35
42	35
47	35
52	30

Probability of Electing a Vested Benefit (effective June 30, 2002)

Years of Service	**Regular Membership**		**Special Service Groups**
	Males	Females	
5	61%	70%	53%
10	66%	73%	65%
15	71%	80%	85%
20	76%	85%	95%
25	80%	90%	100%
30	80%	90%	100%

Rates of Salary Increase* (effective June 30, 2006)

Years of Service	Annual Increase	Years of Service	Annual Increase	Years of Service	Annual Increase
		11	5.3%	22	4.5%
Under 2	12.0%	12	5.2%	23	4.4%
2	9.5%	13	5.1%	24	4.4%
3	7.7%	14	5.0%	25	4.4%
4	7.1%	15	4.9%	26	4.3%
5	6.6%	16	4.8%	27	4.3%
6	6.1%	17	4.7%	28	4.2%
7	5.9%	18	4.6%	29	4.1%
8	5.7%	19	4.6%	30	4.0%
9	5.5%	20	4.5%	Over 30	4.0%
10	5.4%	21	4.5%		

*Includes 4.0% wage growth.

ACTUARIAL COST METHOD

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the entry age normal actuarial cost method. Under this method, a total contribution rate is determined which consists of two parts: (i) the normal cost rate and (ii) the unfunded actuarial liability (UAL) rate. The entry age normal cost method has the following characteristics:

(i) The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation rates.

The entry age normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation rates between the entry age of the member and the assumed exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting the actuarial value of assets from the actuarial accrued liability determines the unfunded actuarial liability (UAL). For regular members, the difference between the statutory contribution rate and the normal cost rate is used to finance the UAL and the number of years necessary to finance the unfunded actuarial accrued liability as a level percent of member payroll is determined. For Special Service members, the contribution rate is the sum of the normal cost rate and the rate required to amortize the UAL or surplus over 30 years. The one-year lag between the valuation date and the date the contribution rate is effective is reflected in calculating the UAL and the corresponding amortization payment.

ACTUARIAL VALUE OF ASSETS SMOOTHING METHOD

The market value of assets, representing a fair value of System assets, may not necessarily be the best measure of the System's <u>ongoing</u> ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens volatility in the market value while still indirectly recognizing market value. The specific technique follows:

Step 1: Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return applied to the prior actuarial value and the actual receipts and disbursements of the fund for the previous 12 months.

Step 2: Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.

Step 3: Multiply the difference between market and expected values determined in Step 2 by 25%.

Step 4: Add the expected value of Step 1 and the product of Step 3 to determine the actuarial value of assets.

Step 5: Verify the preliminary actuarial value of assets in Step 4 is not more than 120% of the market value of assets nor less than 80% of the market value. If it is, adjust the actuarial value of assets so it falls within the 80% - 120% corridor.

TECHNICAL VALUATION PROCEDURES

Data Procedures

In-pay members:

If a birth date is not available, the member is assumed to be 80. If a retirement date is also not available, the member is assumed to have retired at 65.

If a beneficiary birth date is needed but not supplied, husbands are assumed to be 3 years older than wives.

Not in-pay members:

If a birth date is not available, the member is assumed to be the average age of the members with the same status.

If gender is not provided, regular members are assumed to be female and Special Service members are assumed to be male.

Salaries for first year members are annualized based on the number of quarters with wages.

Membership Transfers

IPERS provides Milliman with a code to indicate that a member is in a membership group (regular, Special Service 1 and Special Service 2) different from that on the prior valuation date. The actuarial liability for these members is calculated under the assumptions and provisions of the prior membership group. A preliminary funded ratio (before asset transfer) is determined for the three membership groups. Assets are then transferred from the prior to the current membership group based on the funded ratio of the prior group times the actuarial liability of the member in the prior group. Then, the members are revalued in the current membership group for purposes of valuation calculations.

Other Valuation Procedures

No actuarial accrued liability in excess of the unclaimed member contribution balance is held for nonvested, inactive members. Inactive vested members who have died are treated in the same manner.

The wages used in the projection of benefits and liabilities are considered earnings for the current year ending June 30, increased by the salary scale.

The calculations for the actuarial required contribution are determined as of mid-year. This is a reasonable estimate since contributions are made on a monthly basis throughout the year.

The projected IRC Section 415 limit for active participants was not valued. The impact was assumed to be *de minimus*.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation.

DEFINITION OF TERMS

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."
Actuarial Equivalent	A single amount or series of amounts of equal value to another single amount or series of amounts computed on the basis of a given set of actuarial assumptions.
Actuarial Liability	The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial accrued liability."
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Liability

The difference between actuarial liability and the valuation assets. Sometimes referred to as "unfunded accrued liability" or "unfunded liability".

Most retirement systems have unfunded actuarial liability. They arise anytime new benefits are added and anytime an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial liability and make payments to finance it. Also of importance are trends in the amount or duration of payment.

APPENDIX D

IPERS Funding Policy

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APPENDIX D

IPERS FUNDING POLICY

This policy was developed by joint action of IPERS' management team and the System's actuarial consultant, and adopted by IPERS management in 1996.

Purpose

This funding policy is intended to provide a measure of the funded status of the Iowa Public Employees' Retirement System (System) on a long-term basis and to provide a set of safeguards as guidelines to help ensure the financial solvency of the System.

Recognizing that the System and its environment are not static, periodic review of this policy shall be conducted to ensure its continuing validity.

Primary Goal

The primary funding goal of the System is to be funded on an actuarially sound basis over the long term by maintaining actuarial contribution rates, given the maximum amortization period, which are equal to or less than the statutory contribution rates.

Definition of "Fully Funded"

The term "fully funded" is used to describe the situation in which the assets are equal to or greater than the liabilities. The focus of IPERS is to define assets and liabilities on a long term basis; therefore, the IPERS funding policy defines the term "fully funded," as well as the terms "actuarially sound" and "financial solvency," to mean that the current actuarial value of assets along with the future expected contributions will be sufficient to provide the benefits promised to members for both accrued and expected future service (as set forth in Iowa code Chapter 97B) within the parameters established in this funding policy. The minimum standards for the System to be considered fully funded is that the normal cost rate plus the amortization payment on the unfunded actuarial liability may not exceed the statutory combined contribution rate. In determining the amortization payment, the amortization period shall never exceed 30 years.

Safeguards for System to Remain Fully Funded

The following safeguards are established to ensure that IPERS continues to be funded on an actuarially sound basis over the long term, so that adequate funds will accumulate to provide all benefits promised to members.

1. The **normal cost rate** (the level percentage of salary required to pay the cost of retirement benefits that are allocated to the current year of service), based on the actuarial cost method used to determine the annual funding requirements for the System, shall not exceed the statutory combined employee/employer contribution rate minus 0.5%.

2. Given the statutory combined employer/employee contribution rate, the amortization period for the unfunded liability as reported in the annual valuation shall not exceed 24 years.

3. Any change in the benefit structure of IPERS that results in an increase in the normal cost rate and/or the unfunded actuarial liability, and/or any distribution to eligible members, should not be considered unless (a) the amortization period reported in the last actuarial valuation report is 20 years or less, and either (b) the amortization period has been less than the maximum (24 years) for at least three consecutive years or (c) the amortization period has been less than ten years for at least two consecutive years, subject to the additional constraint that any distribution does not prevent the amortization period of the prior period from declining.

4. Consideration should be given to increasing the statutory contribution rate if either of the following occur at least three years in any five consecutive year period:
   - The normal cost rate exceeds the standard set in item (1) above
   - The amortization period exceeds the standard set in item (2) above by more than 5 years.